Claim Listing

1. (original) A compound of formula (I),

$$\mathbb{R}^{2}$$
 \mathbb{N}
 $\mathbb{N$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

A is a monocyclic or bicyclic ring selected from the group consisting of aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocycle;

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxyearbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkyl), alkenyl, (cycloalkyl)alkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, haloalkyl, RaRaN-, RaRaNalkyl-, RaRaNC(O)alkyl-, RaRaNC(O)olkyl-, RaR

 R^2 and R^3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl, alkoxyalkyl, alkoxyacarbonyl, alkyl, aryl, arylalkyl, heteroaryl, heterocycle, heteroarylalkyl, cyano, halo, $-N(R_a)(R_b)$, $R_aR_bNC(O)$ -, $-SR_{as}$ $-S(O)R_{as}$ $-S(O)_2R_a$ and $R_aC(O)$ -; wherein R^2 and R^3 are independently substituted with 0, 1, 2 or 3 substitutents independently selected from the group consisting of R_{us} alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, $-(alkyl)(OR_b)$, $-(alkyl)(NR_aR_b)$, $-SR_{us}$ $-S(O)R_a$, $-S(O)R_a$, $-OR_b$, $-N(R_a)(R_b)$, $-C(O)R_a$, $-C(O)OR_a$ and $-C(O)NR_aR_b$;

alternatively, R^2 and R^3 , together with the carbon atoms to which they are attached form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl and heterocycle is optionally substituted with $(R^6)_m$;

R4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, RaRbN-,

N₃-, R₆S-, wherein R⁴ is independently substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano, -OH, -NHs, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylatkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN-, R_aC(O)-, R_aS-, R_a(O)S-, R_a(O)S-, R_aR_bNalkyl-, R_a(O)SN(R_i)-, R_aSo₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_iC(O)-, R_iC

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroarylalkyl, heteroacylealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_{ab} - $S(O)R_a$, - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_{ab} - NR_aR_{ba} - SR_{ac} - SO_2R_{ac} - $C(O)OR_{ac}$ - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 $R_a \ and \ R_b, \ at each occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkenyl, eycloalkenyl, eycloalkenyl, eycloalkenyl, eycloalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, R, heteroarylalkyl, R, heteroarylalkyl, R, heteroarylalkyl, R, heteroarylalkyl, R, heteroarylalkyl, R, R, heteroarylalkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, h$

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_e),

 $-(alkyl)(NR_cR_d), -alkylSO_2NR_cR_d, -alkylC(O)NR_cR_d, -SR_c, -S(O)R_c, -S(O)_2R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;$

 R_c and R_{ds} at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_dR_{bs}$, $-OR_{fs}$, $-CO(R_f)$, $-SR_{fs}$, $-SO_2R_{fs}$, $-CO(NR_dR_{bs}$, $-SO_2NR_dR_{bs}$, $-C(O)OR_{fs}$ alkenyl, alkyl, alkynyl, cycloalkyl (cycloalkylalkyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_f), -(alkyl)(NR_dR_b), -SR_f, -S(O)R_g, -S(O)_2R_f, -OR_f, -N(R_c)(R_b), -C(O)R_f, -C(O)OR_f, -1(R_b)C(O)OR_f, -N(R_c)C(O)NR_dR_b, -N(R_c)

alternatively, R_c and R_{cb} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(Ω_c), -(alkyl)(Ω_c), - Ω_c -SR₅ -S(O)R₅ -S(O)₂R₅ -OR₅ -N(R₇)(R_b), -C(O)R₆ -C(O)OR₆ and -C(O)NR₈:

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

R₅ R₈ and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each R₆, R₈ and R_b is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, elakynly, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), -N(alkyl)₂, -S(alkyl), -S(o)(alkyl), -SO₂alkyl, -alkyl-O-alkyl, -alkylNH₂, -alkylN(H)(alkyl), -alkylN(alkyl)₂, -alkylS(alkyl), -alkylSO₂alkyl, -N(H)(C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl);

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently

selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, –OH, -O(alkyl), -NH₂, -N(H)(alkyl), -N(alkyl)₂, -S(alkyl), -S(alkyl), -S(O)(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkylNH₂, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(alkyl), -alkylS(O)(alkyl), -alkylSO₂alkyl, -alkylN(alkyl)₂, -N(H)C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)Alkyl, -C(O)NH₂, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

 R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocyclealkyl, nitroalkyl, $R_aR_kNalkyl$ -, $R_aCalkyl$ -, $R_aR_kNC(O)$ -, $R_aR_kNC(O)$ -, $R_aR_kNC(O)$ -, $R_aC_kC(O)$ -,

m is 0, 1, 2, 3, or 4; and

n is 0, 1, 2, 3, or 4;

with the proviso that when A is a monocyclic ring other than

and R^4 is alkoxy, aryloxy, hydroxy or R_oS -, and R^5 is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heterocyclealkyl, cycloalkyl, cyano, nitro, R_oR_oN -, $R_oC(O)$ -, R_oS -, $R_o(O)S$ -, $R_o(O)S$ -, $R_o(O)S$ -, R_oS -, $R_o(O)S$ -, R_oS -,

and with the further proviso that when A is

and R^4 is hydroxy or R_cS -, and R^5 is hydrogen, unsubstituted alkyl, halo or $-OR_{ks}$ and R^6 is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heterocyclealkyl, $-SR_{ks}$ - $S(O)R_{ks}$ - $S(O)R_{ks}$

 $-OR_k$, $-N(R_a)(R_b)$, $-C(O)R_a$, $-C(O)OR_a$ and $-C(O)NR_aR_b$, then R^1 is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heterocyclealkenyl or heterocyclealkyl.

- (original) The compound of claim 1 wherein A is a monocyclic ring selected from the group consisting of aryl and heteroaryl.
 - 3. (original) The compound of claim 2 wherein

A is aryl; and

R² and R³, together with the carbon atoms to which they are attached form a five- or sixmembered ring selected from the group consisting of phenyl, pyridyl, pyrimidinyl, pyridazinyl, thienyl, furanyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, triazolyl, thiadiazolyl, tetrazolyl, evelopentyl and evelohexyl.

- 4. (original) The compound of claim 3 wherein A is phenyl.
- 5. (original) The compound of claim 4 wherein R_2 and R_3 together with the carbon atoms to which they are attached form a pyridyl ring.
 - 6. (original) The compound of claim 1 of formula (II)

$$(\mathbb{R}^6)_{\overline{m}} \underbrace{\prod_{\substack{N \\ | R^6 \rangle}}^{\mathbb{R}^4} \prod_{\substack{N \\ | R^1 \rangle}}^{\mathbb{N}} (II)}_{\mathbb{R}^1}$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl)alkyl, carboxyalkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, nitroalkyl, R_aR_bN-R_aR_bNalkyl-, R_aR_bNC(O)alkyl-, R_aR_bNC(O)Oalkyl-, R_bR_bNC(O)Oalkyl-, R

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with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroeycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_c), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_c), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_c;

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, $R_aR_bN_\tau$, $N_{3\tau}$, R_cS_τ , wherein R^4 is independently substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano, -OH, -NH $_{\tau}$, and -COOH;

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_{as} , - $S(O)R_a$, - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_{as} , - NR_aR_b , - SR_{as} , - SO_aR_a , - $C(O)OR_a$, - $C(O)NR_aR_b$ and - $NC(O)R_a$;

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkylSO₂NR_cR_{ds} -alkylC(O)NR_cR_{ds} -SR_{cs} -S(O)R_{cs} -S(O)₂R_{cs} -OR_{cs} -N(R_c)(R_d), -C(O)R_{cs} -C(O)OR_{cs} and -C(O)NR_cR_{ds}

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_dR_b$, $-OR_5$, $-CO(R_c)$, $-SR_5$, $-SOR_5$, $-SO_2R_5$, $-C(O)NR_dR_b$, $-SO_2NR_dR_b$, $-C(O)OR_5$ alkenyl, alkyl, alkyly, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_f), -(alkyl)(NR_fR_b), -SR_f, -S(O)R_f, -S(O)_2R_f, -OR_f, -N(R_f)(R_b), -C(O)R_f, -C(O)OR_f, -C(O)NR_fR_b, -C(O)N(H)NR_fR_b, -N(R_c)C(O)OR_f, -N(R_c)SO_2NR_fR_b, -N(R_c)C(O)NR_fR_b, -alkylN(R_c)C(O)OR_f, -alkylN(R_c)SO_3NR_fR_b, and -alkylN(R_c)C(O)NR_fR_b;

alternatively, R_c and R_{ds} together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR $_{c}$), -(alkyl)(NR $_{c}$ R $_{b}$), -SR $_{c}$, -S(O)R $_{c}$, -GO) $_{c}$ R $_{c}$ -OR $_{c}$, -N($_{c}$)(R $_{b}$), -C(O)R $_{c}$ -C(O)OR $_{c}$ and -C(O)NR $_{c}$ R $_{b}$;

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm f}$ $R_{\rm g}$ and $R_{\rm h}$, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heterocaryl and heteroarylalkyl; wherein each $R_{\rm f}$ $R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(o)(alkyl), $-So_{2}alkyl$, -alkyl-O-alkyl, -alkyl-O-alkyl, -alkylN(H)(alkyl), -alkylN(H)(alkyl), $-alkylN(alkyl)_2$, -alkylS(alkyl), $-alkylSo_{2}alkyl$, $-N(H)(C(O)NH_2$, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)N(H)(alkyl), and -C(O)N(alkyl);

alternatively, R_r and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle:

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a three-to seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_2$, -N(H)(alkyl), -N(alkyl), -S(alkyl), -S(O)(alkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkylNH_2$, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(O)(alkyl), $-alkylSO_2alkyl$, $-alkylN(alkyl)_2$, $-N(H)C(O)NH_2$, -C(O)OH, -C(O)O(alkyl), $-C(O)OHl_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$), $-C(O)NH_2$, $-C(O)NH_2$), $-C(O)NH_2$)

 R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkyl, formylalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, $R_aR_bNE(h)$, $R_aR_$

m is 0, 1, 2, 3, or 4; and

n is 0, 1, 2, 3, or 4;

with the proviso that when R^4 is alkoxy, aryloxy, hydroxy or R_oS -, and R^5 is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heterocyclealkyl, cycloalkyl, cyano, nitro, R_aR_bN -, $R_aC(O)$ -, R_aS -, $R_a(O)S$ -, $R_aSO_2N(R_0)$ -, $R_aR_bNC(O)$ -, $R_aC(O)$ -, $R_aR_bNSO_2$ - or $-OR_k$, and R^6 is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heterocyclealkyl, $-SR_a$ - $-S(O)R_a$ - $-S(O)_2R_a$, $-CR_{bo}$ - $N(R_a)(R_b)$, $-C(O)R_a$, $-C(O)OR_a$ and $-C(O)NR_aR_b$, then R^1 is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroaryl, heteroarylalkyl, heterocyclealkenyl or heterocyclealkyl.

- 7. (original) The compound of claim 6 wherein R⁴ is hydroxy.
- 8. (original) The compound of claim 7 wherein R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkylalkyl, cycloalkylalkyl, formylalkyl,

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one;

haloaikyl, heteroarylaikenyl, heteroarylaikyl, heterocycle, heterocycleaikenyl, heterocycleaikyl, hydroxyaikyl, R_aR_bN -, R_aR_bN alkyl-, R_aR_bN C(O)aikyl-, R_iR_k C=N- and R_k O-.

- 9. (original) The compound of claim 5 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:
- 1-[2-(1-cyclohexen-1-yl)ethyl]-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1,8-naphthyridin-2(1H)-one;
- $ethyl \ [3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-2-oxo-1,8-naphthyridin-1(2H)-yl] acetate; \\$
- $3-[3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-2-oxo-1,8-naphthyridin-1(2H)-yl] \\ propanal;$
- 1-[3-(dimethylamino)propyl]-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1,8-naphthyridin-2(1H)-one;
- $1-\{3-[[2-(dimethylamino)ethyl](methyl)amino]propyl\}-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1,8-naphthyridin-2(1H)-one;$

- $\label{lem:lem2} \hbox{$1$-(benzyloxy)-$3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-$3-yl)-$4-hydroxy-$1,8-naphthyridin-$2(1H)-one and 1-(benzyloxy)-$3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-$3-yl)-$4-hydroxy-$1,8-naphthyridin-$2(1H)-one and 1-(benzyloxy)-$3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-$3-yl)-$4-hydroxy-$1,8-naphthyridin-$2(1H)-one and 1-(benzyloxy)-$3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-$3-yl)-$4-hydroxy-$1,8-naphthyridin-$2(1H)-one and 1-(benzyloxy)-$3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-$3-yl)-$4-hydroxy-$1,8-naphthyridin-$2(1H)-one and 1-(benzyloxy)-$3-(benzyloxy)$
- 3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-isobutoxy-1,8-naphthyridin-2(1H)-one;
 - l-benzyl-4-chloro-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one; l-butyl-4-chloro-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one; 4-amino-1-butyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one; l-butyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-(methylamino)-1,8-naphthyridin-2(1H)-

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1-butyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydrazino-1,8-naphthyridin-2(1H)-one;
4-azido-1-butyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one;
1-butyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-[(2-hydroxyethylaminol-1,8-

naphthyridin-2(1H)-one;

N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl-N-(2-phenylethyl)sulfamide:

benzyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxylate 2,2-dioxide:

N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]sulfamide;

benzyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]-1-propyldiazathiane-1-carboxylate 2,2-dioxide;

 $\label{eq:N-2-1} N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-N-propylsulfamide;$

methyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]diazathiane-1-earboxylate 2,2-dioxide;

allyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-vl]diazathiane-1-carboxylate 2,2-dioxide;

2-propynyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxylate 2,2-dioxide;

 $\label{lem:condition} 2\mbox{-cyanoethyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxylate 2,2-dioxide;$

2-(trimethylsilyl)ethyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxylate 2,2-dioxide;

methyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxylate 2,2-dioxide:

benzyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-1-methyldiazathiane-1-carboxylate 2,2-dioxide;

N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-N-methylsulfamide;

2-aminoethyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]diazathiane-1-earboxylate 2,2-dioxide;

N-cyclopentyl-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-

dioxido-4H-1,2,4-benzothiadiazin-7-yl]sulfamide;

N-cyclobutyl-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]sulfamide:

N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-N-(4-piperidinyl)sulfamide;

 $\label{eq:N-2-hydroxyethyl-N-3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]sulfamide;$

3-[(\{\frac{1}{3}\)-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]amino}sulfonyl)amino]propanamide;

 $\label{eq:N-2-1} N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-1-azetidinesulfonamide;$

3-hydroxy-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-1-azetidinesulfonamide;

3-amino-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-1-pyrrolidinesulfonamide;

N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]-1-piperidinesulfonamide;

 $\label{eq:N-benzyl-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]sulfamide;$

 $ethyl\ 3-[(\{[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]amino\}sulfonyl)amino]benzoate;$

 $3-[(\{\{3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4\textit{H}-1,2,4-benzothiadiazin-7-yl]amino\} sulfonyl)amino]benzoic acid;$

 $3-[(\{\{3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yllamino\}sulfonyl)amino]benzamide;$

N-(2-aminoethyl)-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8] naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl] sulfamide;

 $\label{local-equation} $$ \frac{(-4-h)droxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]amino} sulfonyl)-3-piperidinecarboxylate;$

methyl (2S)-1-{{{3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yllamino}sulfonyl}-2-pyrrolidinecarboxylate:

N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-1-pyrrolidinesulfonamide;

3-hydroxy-N-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]-1-piperidinesulfonamide; and

N-(2-furylmethyl)-3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro[1,8]naphthyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxamide 2,2-dioxide.

- 10. (original) The compound of claim 4 wherein R² and R³, together with the carbon atoms to which they are attached form a thierv1 ring.
 - 11. (original) The compound of claim 1 of formula (III):

$$(\mathbb{R}^6)_{m} \overset{S}{\underset{\mathbb{R}^1}{\bigvee}} \underbrace{(\mathbb{R}^5)_n}_{H}$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, cyanoalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl)alkenyl, (cycloalkyl)alkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, nitroalkyl, R₈R₈N-R₈R₈Nalkyl-, R₈R₈NC(O)alkyl-, R₈R₈NC(O)NR_calkyl-, R₄R₈C-N- and R₈O-, wherein R¹ is substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR₆R_c), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_c), -C(O)R_c, -C(O)O₈, and -C(O)NR₈R_c;

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN -, N_3 -, R_sS -, wherein R^4 is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano, -OH, -NH₂, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylatkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl,

nitro, R_aR_bN -, $R_aC(O)$ -, R_aS -, $R_a(O)S$ -, $R_a(O)_2S$ -, $R_aR_bNalkyl$ -, $R_a(O)SN(R_t)$ -, $R_aSO_2N(R_t)$ -, $R_a(O)SN(R_t)$ -, $R_aSO_2N(R_t)$ -,

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_{ab} - $S(O)R_{ab}$ - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_m - NR_aR_{ba} - SR_{ab} - SO_2R_a - $C(O)OR_a$, - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 R_a and R_b , at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkyl, eycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, baloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, R_a , R_b , heteroarylalkyl, R_b , heteroarylalkyl, R_b , R_b , R

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkyl OR_c 0, -alkyl OR_c

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_iR_b$, $-OR_5$, $-CO(R_f)$, $-SR_5$, $-SOR_5$, $-SO_2R_5$, $-C(O)NR_iR_b$, $-SO_2NR_iR_b$, $-C(O)OR_5$ alkenyl, alkyl, alkynyl, cycloalkyl, cycloalky

heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_i), -(alkyl)(NR_iR_b), -SR₅ -S(O)₂R₅ -OR₆ -N(R_c)(R_i), -C(O)R₆ -C(O)OR₅ -C(O)NR_iR_b, -C(O)N(H)NR_iR_b, -N(R_c)C(O)OR₅ -N(R_c)SO₂NR_iR_b, -N(R_c)C(O)NR_iR_b, -alkylN(R_c)C(O)NR_iR_b.

alternatively, R_c and R_{ds} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(Ω_{cl}), -(alkyl)(NR_cR_h), - SR_6 - $S(O)R_6$ - $S(O)_2R_6$ - OR_6 - $N(R_0(R_h)$, - $C(O)R_6$ - $C(O)OR_6$ and - $C(O)NR_cR_h$:

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{5}\ R_{g}\ and\ R_{h},\ at\ each\ occurrence,\ are\ independently\ selected\ from\ the\ group\ consisting\ of\ hydrogen,\ alkyl,\ alkenyl,\ aryl,\ arylalkyl,\ cycloalkyl,\ cycloalkylalkyl,\ cycloalkenyl,\ cycloalkenyl,\ cycloalkenyl,\ cycloalkenyl,\ deterocycle,\ heterocycle,\ heterocyclealkyl,\ heteroarylalkyl;\ wherein\ each\ R_{6}\ R_{g}\ and\ R_{h}\ is\ independently\ substituted\ with\ 0,\ 1,\ 2\ or\ 3\ substituents\ independently\ selected\ from\ the\ group\ consisting\ of\ alkyl,\ alkenyl,\ alkynyl,\ eyano,\ halo,\ oxo,\ nitro,\ aryl,\ arylalkyl,\ cycloalkyl,\ cycloalkenyl,\ heterocycle,\ heterocycl$

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R₇ and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each
of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently
selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl,
cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -NH₂, -N(H)(alkyl),
-N(alkyl), -S(Oklkyl), -S(O(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkyl-NH₂, -alkyl-N(H)(alkyl),
-alkylS(alkyl), -alkylS(O(alkyl), -alkylSO₂alkyl, -alkylN(alkyl)₂, -N(H)C(O)NH₂, -C(O)O(alkyl),
-C(O)O(alkyl), -C(O)Alkyl, -C(O)NH₂, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

 $R_k \ is \ selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocyclealkyl, nitroalkyl, <math>R_aR_bNalkyl$ -, R_aOlkyl -, $R_aR_bNC(O)$ -, $R_aR_bNC(O)$ -, $R_aSO(O)$ -, $R_aSO(O)$ -, R_aSO_2 -, $R_aSalkyl$ -, $R_a(O)$ Salkyl-, R_aSO_2 alkyl-, $R_aC(O)$ -, $R_aC(O)$ -, $R_aC(O)$ -, $R_aC(O)$ -, R_aSO_2 -, $R_aSalkyl$ -, R_aSO_2 -, R_aSO

m is 0, 1, or 2; and n is 0, 1, 2, 3, or 4;

with the proviso that when R⁴ is alkoxy, aryloxy, hydroxy or R_cS-, and R⁵ is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heteroeyclealkyl, cycloalkyl, cyano, nitro, R_aR_sN-, R_cC(O)-, R_aS-, R_a(O)S-, R_a(O

- 12. (original) The compound of claim 11 wherein R⁴ is hydroxy.
- 13. (original) The compound of claim 12 wherein R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, cyanoalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R_aR_bN-, R_aR_bNalkyl-, R_aR_bNC(O)alkyl-, R_dR_aC=N- and R_bO-.
- 14. (original) The compound of claim 10 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:

 $\label{eq:continuous} 4-amino-6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-b]pyridin-5(4H)-one;$

- 6-(1,1-Dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-(isobutylamino)thieno[3,2-*b*] pyridin-5(4*H*)-one:
 - $6 (1, 1 dioxido 4H 1, 2, 4 benzothiadiazin 3 yI) 7 hydroxy 4 \{[(3S) 3 methylcyclopentyI]amino\}$

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- thieno[3,2-b]pyridin-5(4H)-one;
- 4-{[1-cyclopropylethyl]amino}-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno [3,2-*b*]pyridin-5(4*H*)-one;
- 4-(butylamino)-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-*b*]pyridin-5(4*H*)-one;
- 6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-[(2-ethylbutyl)amino]-7-hydroxythieno[3,2-b] pyridin-5(4H)-one;
- $6 (1, 1 {\rm dioxido} 4H 1, 2, 4 {\rm benzothiadiazin} 3 yl) 7 {\rm hydroxy} 4 ({\rm pentylamino}) \\ {\rm thiono}[3, 2 b] \\ {\rm pyridin} 5(4H) {\rm one};$
- 6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(3-methylbutyl)amino]thieno[3,2-b] pyridin-5(4H)-one;
- 4-[(3,3-dimethylbutyl)amino]-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno [3,2-*b*]pyridin-5(4*H*)-one;
- $6 (1,1-{\rm dioxido} 4H-1,2,4-{\rm benzothiadiazin-3-yl})-7-{\rm hydroxy-4-[(3-methylbenzyl)amino]thieno[3,2-b]pyridin-5(4H)-one; }$
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(2-methylbenzyl)amino]thieno[3,2-*b*]pyridin-5(4*H*)-one;
- $\label{eq:condition} 6-(1,1-{\rm dioxido}-4H-1,2,4-{\rm benzothiadiazin-3-yl})-7-{\rm hydroxy-4-[(4-methylbenzyl)amino]thieno[3,2-b]pyridin-5(4H)-one;}$
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(3-methylbut-2-enyl)amino]thieno [3,2-*b*]pyridin-5(4*H*)-one;
- $\label{eq:control} 6\text{-}(1,1\text{-}dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-(propylamino)thieno[3,2-b]pyridin-5(4H)-one;$
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(pyridin-4-ylmethyl)amino]thieno [3,2-*b*]pyridin-5(4*H*)-one;
- 6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(pyridin-3-ylmethyl)amino]thieno [3,2-b]pyridin-5(4H)-one;
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(pyridin-2-ylmethyl)amino]thieno [3,2-*b*]pyridin-5(4*H*)-one;
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(3-methoxybenzyl)amino]thieno [3,2-*b*]pyridin-5(4*H*)-one;
- $\label{eq:continuity} 6-\{1,1-\text{diox}i\text{do-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl}\}-4-[(3-\text{fury}|\text{methy}|\text{)amino}]-7-\text{hydroxythieno}[3,2-b]\text{pyridin-}5(4H)-\text{one};$

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- 3-({[6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-5-oxothieno[3,2-*b*]pyridin-4(5*H*)-yl]amino}methyl)benzonitrile;
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(thien-3-ylmethyl)amino]thieno[3,2-*b*]pyridin-5(4*H*)-one;
- 4-(cyclobutylamino)-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-*b*] pvridin-5(4*H*)-one:
- 4-(benzylamino)-6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-b]pyridin-5(4H)-one;
- 4-[(cyclohexylmethyl)amino]-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno [3,2-*b*]pyridin-5(4*H*)-one;
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-[(1,3-thiazol-5-ylmethyl)amino] thieno[3,2-*b*]pyridin-5(4*H*)-one;
- 4-[(3-bromobenzyl)amino]-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-*b*]pyridin-5(4*H*)-one;
- 4-(cyclohexylamino)-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-*b*] pyridin-5(4*H*)-one;
- 4-(cyclopentylamino)-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-*b*] pyridin-5(4*H*)-one;
- 4-(cycloheptylamino)-6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-b] pyridin-5(4H)-one;
- $\label{eq:continuous} 6-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-7-\text{hydroxy-}4-\{[(1R,3S)-3-\text{methylcyclohexyl}]\ aminothieno[3,2-b]pyridin-5(4H)-one;$
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxy-4-{[(1*R*,3*R*)-3-methylcyclohexyl] amino}thieno[3,2-*b*]pyridin-5(4*H*)-one;
- 6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-[(1-ethylpropyl)amino]-7-hydroxythieno[3,2-*b*] pvridin-5(4*H*)-one:
- $\label{eq:continuous} 6-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-yl)-7-\text{hydroxy-}4-\{[1-\text{phenylethyl}]\text{amino}\}\text{thieno}[3,2-b] \\ \text{pyridin-}5(4H)-\text{one};$
- $6-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-7-\text{hydroxy-}4-\{[(1R)-1-\text{methylbutyl}]\text{aminothieno} \\ [3,2-b]\text{pyridin-}5(4H)-\text{one};$
- 4-(cyclobutylamino)-6-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno[3,2-*b*] pyridin-5(4*H*)-one;
 - 4-[(cyclopropylmethyl)amino]-6-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-7-hydroxythieno

[3,2-b]pyridin-5(4H)-one; and

2-({3-[4-(cyclohexylamino)-7-hydroxy-5-oxo-4,5-dihydrothieno[3,2-b]pyridin-6-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl} oxy)acetamide.

15. (original) The compound of claim 1 of formula (IV)

$$\mathbb{R}^{R^6} \xrightarrow{\mathbb{N}^6} \mathbb{N}^{\mathbb{N}^6} \xrightarrow{\mathbb{N}^6} \mathbb{N}^{\mathbb{N}^6} \mathbb{N}^{\mathbb{N}^6}$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkynyl, aryl, arylalkenyl, arylsulfanylalkyl, arylsulfanylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cyanoalkyl, baloalkoxyalkyl, haloalkyl, beteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, RaRaN-, RaRaN-RaRaNC(O)alkyl-, RaRaNC(O)Mcalkyl-, RaRaNC(O)Mcalkyl-, RaRaNC(O)Alkyl-, RaRaNC(O)Mcalkyl-, RaRaNC(O)Alkyl-, R

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN -, N_2 -, R_cS -, wherein R^4 is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylearbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN-, R_aC(O)-, R_aS-, R_a(O)S-, R_a(O)S-, R_aR_bNalkyl-, R_a(O)SN(R_i)-, R_aSO₂N(R_c)-, R_aSO₂N

of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), - SR_c , - $S(O)R_c$, - $S(O)_2R_c$, - OR_c , - $N(R_c)(R_d)$, - $C(O)R_c$, - $C(O)OR_c$ and - $C(O)NR_cR_d$;

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_b), -(alkyl)(NR_aR_b), - SR_{as} - $S(O)R_{as}$ - $S(O)_2R_{as}$ - OR_{ks} - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_{as} - NR_aR_{bs} - SR_{as} - SO_2R_{as} - $C(O)OR_{as}$ - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 $R_a \ and \ R_b, \ at each occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, keteroarylalkyl, heteroarylalkyl, keteroarylalkyl, R, keteroarylalkyl, keteroarylalkyl, alkenyl, alkonyl, alkonylalkoryalkyl, -(alkyl)(OR_a), -(alkyl)(NR_aR_a), -SR_a, -S(O)R_a, -S(O)R_a, -CR_a, -N(R_a)R_a), -(C(O)R_a, -C(O)OR_a, and -C(O)NR_aR_a;$

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkyl $SO_2NR_cR_d$, -alkyl $C(O)NR_cR_d$, - SR_c , - $S(O)R_c$, - $S(O)_2R_c$, - OR_c , - $N(R_c)(R_d)$, - $C(O)R_c$, - $C(O)OR_c$ and - $C(O)NR_cR_d$;

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, -NR_iR_b, -OR_b, -CO(R_b), -SR_b, -SOR_b, -SO_R_b, -C(O)NR_{Rb}, -SO₂NR_iR_b, -C(O)OR_b, alkenyl, alkyl, alkyly, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alky)lOR_c), -(alky)lNR_iR_b), -SR_c, -S(O)R_c, -S(O, -NR_c, -NR_c)R_b). -C(O)R_c

 $-C(O)OR_{f_1}-C(O)NR_fR_{h_2}-C(O)N(H)NR_fR_{h_2}-N(R_c)C(O)OR_{f_1}-N(R_c)SO_2NR_fR_{h_2}-N(R_c)C(O)NR_fR_{h_3}\\ -alkylN(R_c)C(O)OR_{f_1}-alkylN(R_c)SO_2NR_fR_{h_2} \ and \ -alkylN(R_c)C(O)NR_fR_{h_3};$

alternatively, R_c and R_{d_b} together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(ΩR_0 , -(alkyl)(ΩR_0 , -SR $_0$, -SG $_0$)R $_0$, -GO)R $_0$, -GR $_0$ -NG $_0$ -

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm f}, R_{\rm g}$ and $R_{\rm h}$, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, heteroeyele, heteroeyelealkyl, heteroaryl and heteroarylalkyl; wherein each $R_{\rm f}$ $R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heteroeyele, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(o)(alkyl), $-So_{2}alkyl$, -alkyl-O-alkyl, -Alkyl-O-alkyl

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkyl and heterocycle:

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a three-to seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_{22}$, -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(alkyl), -S(olkyl), -S(olkyl), -alkyl-OH, -alkyl-OH,

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aSO₂-, R_aSalkyl-, R_a(O)Salkyl-, R_aSO₂alkyl-, R_aOC(O)-,

 R_a OC(O)alkyl-, R_a C(O)-, R_a C(O)alkyl-, wherein each R_k is substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_c.

m is 0, 1, 2, 3, or 4; and n is 0, 1, 2, 3, or 4;

with the proviso that when R^4 is alkoxy, aryloxy, hydroxy or R_oS -, and R^5 is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heteroeyclealkyl, cycloalkyl, cyano, nitro, R_aR_bN -, $R_aC(O)$ -, R_aS -, $R_a(O)S$ -, $R_aS(O)S$

- 16. (original) The compound of claim 15 wherein R4 is hydroxy.
- 17. (original) The compound of claim 16 wherein R^1 is selected from the group consisting of R_aR_bN -, R_iR_gC =N- and R_kO -.
- 18. (original) The compound of claim 15 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:
- $3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-\{[(1E)-phenylmethylene]amino\}-2(1H)-quinolinone;$

 $1\hbox{-}amino\hbox{-}3\hbox{-}(1,1\hbox{-}dioxido\hbox{-}4H\hbox{-}1,2,4\hbox{-}benzothiadiazin-}3\hbox{-}yl)\hbox{-}4\hbox{-}hydroxy\hbox{-}2(1H)\hbox{-}quinolinone;$

3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-propoxyquinolin-2(1H)-one;

1-amino-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1H)-one;

3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(1-propylbutyl)amino]quinolin-2(1*H*)-one:

3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one; 3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1-[(1-ethylpropyl)amino]-4-hydroxyquinolin-2(1H)-one;

3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-(pentylamino)quinolin-2(1H)-one;

one;

- 1-(cyclohexylamino)-3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1*H*)-one:
- $3-(1,1-idioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-\{[(2-methyl-1,3-thiazol-4-yl)methyl] amino\} \\ quinolin-2(1H)-one;$
- $\label{eq:control} 3-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-4-\text{hydroxy-}1-(\text{isopropylamino})\text{quinolin-}2(1H)-\text{one:}$ one:
- 1-(cyclobutylamino)-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1H)-4-hydroxyq
- 1-(cyclopentylamino)-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1H)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-{[3-methyleyclopentyl]amino} quinolin-2(1*H*)-one:
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-(tetrahydro-2*H*-pyran-4-ylamino) quinolin-2(1*H*)-one:
- $3-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-1-\{[1-\text{ethylbutyl}]\text{amino}\}-4-\text{hydroxyquinolin-}2(1H)-\text{one};$
- $3-(1,1-\mathrm{dioxido}-4H-1,2,4-\mathrm{benzothiadiazin-3-yl})-4-\mathrm{hydroxy-1-}\{[(3R)-3-\mathrm{methylcyclohexyl}]\mathrm{amino}\}$ quinolin-2(1H)-one;
- 1-(cycloheptylamino)-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1H)-one;
- $3-(1,1-\text{diox}\text{ido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-1-\{[3-\text{ethylcyclopentyl}]\text{amino}\}-4-\text{hydroxyquinolin-}2(1H)-\text{one};$
- $3-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-4-\text{hydroxy-}1-\{[1-\text{isopropy|butyl}]\text{amino}\}\text{quinolin-}2(1H)-\text{one};$
- $3-(1,1-dioxido-4\textit{H}-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-\{[1-phenylethyl]amino\}\ quino lin-2(1\textit{H})-one;$
- $3 (1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-\{[1-thien-3-ylethyl]amino\} \\ quinolin-2(1H)-one;$
- 1-{[3,5-dimethylcyclohexyl]amino}-3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1*H*)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(4-isopropylcyclohexyl)amino] quinolin-2(1*H*)-one;
 - 3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydronaphthalen-2-yl-2-4-hydroxy-1-[1,2,3,4-tetrahydroxy-1

amino]quinolin-2(1H)-one;

- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-{[3-(trifluoromethyl)cyclohexyl] amino}quinolin-2(1*H*)-one;
 - 1-(butylamino)-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1H)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(3-methylbutyl)amino]quinolin-2(1*H*)-one:
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-1-[(3-furylmethyl)amino]-4-hydroxyquinolin-2(1*H*)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-1-[(2-furylmethyl)amino]-4-hydroxyquinolin-2(1*H*)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(thien-2-ylmethyl)amino]quinolin-2(1*H*)-one:
- $3-(1,1-idioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(1,3-thiazol-2-ylmethyl)amino] \\ quinolin-2(1H)-one;$
- $3-(1,1-\text{dioxido}-4H-1,2,4-\text{benzothiadiazin-3-yl})-1-\{[(2R)-2-\text{ethyl-3-methylbutyl}]\text{amino}\}-4-\text{hydroxyquinolin-2}(1H)-\text{one};$
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(4-methylbenzyl)amino]quinolin-2(1*H*)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(3-methylbenzyl)amino]quinolin-2(1*H*)-one;
- 3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(2-methylbenzyl)amino]quinolin-2(1H)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-{[(3-methylthien-2-yl)methyl] amino}quinolin-2(1*H*)-one;
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(4-methoxybenzyl)amino]quinolin-2(1*H*)-one:
- $1-\{[(5-\text{chlorothien-}2-\text{yl})\text{methyl}]\text{amino}\}-3-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-}3-\text{yl})-4-\text{hydroxy quinolin-}2(1H)-\text{one};$
- $1-\{[(2-\text{chloro-1,3-thiazol-5-yl})\text{methyl}]\text{amino}\}-3-(1,1-\text{dioxido-}4H-1,2,4-\text{benzothiadiazin-3-yl})-4-\text{hydroxyquinolin-}2(1H)-\text{one};$
- 1-[(3-bromobenzyl)amino]-3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1*H*)-one:
 - $1-[(4-bromobenzyl)amino]-3-(1,1-dioxido-4 \\ H-1,2,4-benzothia diazin-3-yl)-4-hydroxyquinolin-1-[(4-bromobenzyl)amino]-3-(1,1-dioxido-4 \\ H-1,2,4-benzothia diazin-3-yl)-4-hydroxyquinolin-1-[(4-bromobenzyl)amino]-3-(4-bromobenzyl)-3-(4-bromobenzyl)-3-(4-bromobenzyl)-3-(4-bromobenzyl)-3-(4-bromobenzyl)-3-(4-bromobenzyl)-3-(4-bro$

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- 2(1H)-one;
- 1-[(2-bromobenzyl)amino]-3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxyquinolin-2(1*H*)-one:
- 3-(1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-[(pyridin-3-ylmethyl)amino] quinolin-2(1*H*)-one;
- $3-(\{[3-(1,1-\mathrm{dioxido}-4H-1,2,4-\mathrm{benzothiadiazin-3-yl})-4-\mathrm{hydroxy-2-oxoquinolin-1}(2H)-\mathrm{yl}] a mino \}$ methyl)benzonitrile;
- $2-(\{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\}oxy) acetamide;$
- 2-({3-[1-cyclopentylamino)-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yI]-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yI}oxy)acetamide;
- 2-({3-[1-(cyclohexylamino)-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yI]-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yI}oxy)acetamide;
- $2-[(3-\{1-\{(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl\}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)oxylacetamide;$
- $2-(\{3-[4-hydroxy-1-(isobutylamino\}-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2-benzothiazin-7-yl\}oxy) acctamide;$
- $2-(\{3-[1-(butylamino)-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\}oxy) acetamide;$
- $2-[(3-\{4-\text{hydroxy-1-}[(3-\text{methylbutyl})\text{amino}]-2-\text{oxo-1},2-\text{dihydroquino}]\text{in-3-yl}-1,1-\text{dioxido-4}\\\\H_{1,2,4-\text{benzothiadiazin-7-yl})\text{oxy}]\text{acetamide};$
- 3-(8-amino-7-hydroxy-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-1-(isobutylamino) quinolin-2(1*H*)-one;
- 2-({8-amino-3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}oxy)acetamide;
- $\label{eq:condition} 2-(\{3-[4-hydroxy-2-oxo-1-(propylamino)-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\} oxy)acetamide;$
- 2-({3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}oxy)propanamide;
- $2-(\{3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\}oxy)butanamide;$
- 8-amino-3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl methanesulfonate;

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U.S. Patent Application No. 10/699,513
Response to April 10, 2007 Office action
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1-[(cyclopropylmethyl)amino]-4-hydroxy-3-(7-hydroxy-8-nitro-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)quinolin-2(1*H*)-one;

3-(7-{2-[(3S)-3-aminopyrrolidin-1-yl]-2-oxoethoxy}-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-3-yl)-1-[(cvclopropylmethyl)amino]-4-hydroxyquinolin-2(1*H*)-one;

2-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)oxyl-N-ethylacetamide:

[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)oxylacetic acid:

3-{7-[2-(3-aminopyrrolidin-1-yl)-2-oxoethoxy]-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl}-1-[(cyclopropylmethyl)amino]-4-hydroxyquinolin-2(1H)-one;

3-(8-amino-7-hydroxy-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1-[(cyclopropylmethyl)amino]-4-hydroxyquinolin-2(1H)-one;

2-[(8-amino-3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4*H*-1.2.4-benzothiadiazin-7-yl)oxy]acetamide;

[(8-amino-3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)oxylacetonitrile;

1-[(cyclopropylmethyl)amino]-4-hydroxy-3-[7-(2-hydroxycthoxy)-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yllquinolin-2(1H)-one;

1-[(cyclopropylmethyl)amino]-4-hydroxy-3-[7-(1H-imidazol-2-ylmethoxy)-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yllouinolin-2(1H)-one:

1-[(cyclopropylmethyl)amino]-3-[1,1-dioxido-7-(1,3-thiazol-2-ylmethoxy)-4H-1,2,4-benzothiadiazin-3-yl]-4-hydroxyquinolin-2(1H)-one;

1-[(cyclopropylmethyl)amino]-3-[7-(4,5-dihydro-1H-imidazol-2-ylmethoxy)-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl]-4-hydroxyquinolin-2(1H)-one;

 $2-\{[(3-\{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl\}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)oxy]methyl\}-1,3-thiazole-4-carbonitrile;$

 $\label{eq:continuity} 3-[7-(2-aminoethoxy)-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl]-1-[(cyclopropylmethyl)amino]-4-hydroxyquinolin-2(1H)-one;$

N-{2-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-1.2,4-benzothiadiazin-7-yl)oxylethyl} methanesulfonamide;

3-{7-[(5-bromopyridin-2-yl)oxy]-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl}-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;

4-hydroxy-1-(isobutylamino)-3-{7-[(3-nitropyridin-2-yl)oxy]-1,1-dioxido-4H-1,2,4-

benzothiadiazin-3-yl}quinolin-2(1H)-one;

tert-butyl 3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-1.2.4-benzothiadiazin-7-ylcarbamate;

3-(7-amino-1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1-[(cyclopropylmethyl)amino]-4-hydroxyquinolin-2(1H)-one;

methyl 2-chloro-6-({3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}oxy)isonicotinate;

 $N-\{3-[1-({\rm cyclobutylamino})-4-{\rm hydroxy}-2-{\rm oxo}-1,2-{\rm dihydroquinolin}-3-{\rm yl}]-1,1-{\rm dioxido}-4H-1,2,4-{\rm benzothiadiazin}-7-{\rm yl}\}\ {\rm methanesulfonamide};$

 $\label{eq:N-(3-{l-(cyclopropylmethyl)amino}-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)methanesulfonamide;$

 $\label{eq:N-(3-local-operator)} N-(3-\{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl\}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)methanesulfonamide;$

2-{[3-(1-amino-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyI)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yI]oxy}acetamide;

N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}ethanesulfonamide;

 $benzyl\ 3-\{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\}\ diazathiane-1-carboxylate\ 2,2-dioxide;$

 $N-\{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyI]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\}-N-methylsulfamide; and$

 $N-\{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl\} sulfamide.$

19. (original) The compound of claim 1 wherein:

A is heteroaryl; and

R² and R³, together with the carbon atoms to which they are attached form a five- or sixmembered ring selected from the group consisting of phenyl, pyridyl, pyrimidinyl, pyridazinyl, thienyl, furanyl, pyrrolyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, triazolyl, thiadiazolyl, tetrazolyl, cyclopentyl and cyclohexyl.

20. (original) The compound of claim 19 wherein A is thienyl.

- 21. (original) The compound of claim 20 wherein R² and R³ together with the carbon atoms to which they are attached form a phenyl ring.
 - 22. (original) The compound of claim 1 of formula (Va)

$$\underset{m(R^6)}{\overset{Q}{\underset{N}{\bigvee}}} \underset{N}{\overset{Q}{\underset{N}{\bigvee}}} R^5$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, (cycloalkyl)alkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, nitroalkyl, $R_A R_b N_- R_a R_b N_C(O)$ alkyl-, $R_a R_b N_C(O)$ alkyl-, $R_a R_b N_- R_a R_b$

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN -, N_1 -, R_aS -, wherein R^4 is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN-, R_aC(O)-, R_aS-, R_a(O)S-, R_a(O)S-, R_aR_bNalkyl-, R_a(O)SN(R_i)-, R_aSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO₂N(R_i)-, R_aR_bNC(O)-, R_bC(O)-, R_bC(O)-, R_bC(O)Alkyl-, R_aR_bNSO₂N(R_i)-, R_aR_bNSO

arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_d;

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroarylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_a , - $S(O)R_a$, - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_a , - NR_aR_b , - SR_a , - SO_aR_a , - SO_2R_a , - $C(O)OR_a$, - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 $R_a \ and \ R_b, \ at each occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkyl, cycloalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, R_kO-, R_kO-, R_kOalkyl-, R_kR_dNalkyl-, R_kR_dNC(O)alkyl-, R_kSO_2-, R_kSO_2alkyl-, R_cC(O)-, R_cC(O)Alkyl-, R_kO-, R_kOalkyl-, R_kR_dNC(O)-, R$

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkylSO₂ NR_cR_d , -alkylC(O) NR_cR_d , -SC(O) R_c , -S(O) R_c , -OR $_c$, -N(R_c)(R_d), -C(O) R_c , -C(O) R_c , and -C(O) R_c , -C(O) R_c

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, -NR_iR_b-OR₆, -CO(R_i), -SR₆, -SOR₆, -SOR₆, -C(O)NR_iR_b, -C(O)OR₆, alkenyl, alkyl, alkyl, alkynyl, cycloalkyl, alkyl, alkyl, alkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_i), -(alkyl)(NR_iR_b), -SR₆, -S(O)₂R₆, -S(O, -N(R_i)(R_b), -C(O)R₆, -C(O)NR_iR_b, -C(O)NR_iR

-alkyIN(R_e)C(O)OR_f, -alkyIN(R_e)SO₂NR_fR_b, and -alkyIN(R_e)C(O)NR_fR_b;

alternatively, R_c and R_d , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, eyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR $_0$), -(alkyl)(NR $_0$ R $_0$), -SR $_0$ -S(O)R $_0$ -S(O) $_2$ R $_0$ -OR $_0$ -N($_2$)(R $_0$), -C(O)R $_0$ -C(O)OR $_0$ and -C(O)NR $_0$ R $_0$:

R. is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl:

 R_6 R_g and R_h , at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, heterocycle, heterocyclealkyl, heterocycle, heterocyclealkyl, heterocycle, heterocyclealkyl, heterocycle, heterocyclealkyl, heterocycle, heter

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_r and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_2$, -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(O(alkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkyl-NH_2$, -alkyl-N(H)(alkyl), -alkyl-N(alkyl), -alkyl-N(O(alkyl), -alkyl-N(alkyl), $-alkyl-N(O(NH_2)$, $-N(O(NH_2)$, $-N(O(NH_2)$, $-N(O(NH_2)$, -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)), -N(O(N(alkyl))), -N(O(N(alkyl)), -N(O(N(alkyl)),

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)alkyl, R_aS-, R_aS(O)-, R_aSO₂-, R_aSalkyl-, R_a(O)Salkyl-, R_aSO₂alkyl-, R_aOC(O)-, R_aOC(O)alkyl-, R_aC(O)-, R_aC(O)alkyl-, wherein each R_k is substituted with 0, 1, 2, or 3 substituents

independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_{cs} -S(O)R_{cs} -S(O)₂R_{cs} -OR_{cs} -N(R_c)(R_d), -C(O)R_{cs} -C(O)OR_c and -C(O)NR_cR_d; and

m is 0, 1, 2, 3, or 4:

with the proviso that when R⁴ is alkoxy, aryloxy, hydroxy or R_cS-, and R⁵ is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heteroeyclealkyl, cycloalkyl, cyano, nitro, R_aR_bN-, R_cC(O)-, R_cS-, R_d(O)S-, R_d(O)S-, R_dC(O)S-, R_dC(O)-, R_dR_dC(O)-, R_dR_dRNSO₂- or -OR_k, and R⁶ is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heteroeyclealkyl, -SR_s, -S(O)R_s, -S(O)₂R_s, -OR_k, -N(R_a)(R_b), -C(O)OR_s, and -C(O)NR_aR_b, then R¹ is not hydrogen, alkenyl, alkynyl, aryl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroaryl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkenyl, heteroarylalken

- 23. (original) The compound of claim 22 wherein R4 is hydroxy.
- $\label{eq:constant} 24. \ \ (original) \ \ The compound of claim 23 \ wherein R^1 \ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxyarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R_aR_bN-, R_aR_bNalkyl-, R_aR_bC(O)alkyl-, R_tR_gC=N- and R_kO-.$
 - 25. (original) The compound of claim 1 of formula (Vb)

$$\mathbb{R}^{4} \xrightarrow{N} \mathbb{N}$$

$$\mathbb{R}^{6} \xrightarrow{\mathbb{N}} \mathbb{N}$$

$$\mathbb{R}^{3} \xrightarrow{\mathbb{N}} \mathbb{N}$$

$$\mathbb{N} \xrightarrow{\mathbb{N}} \mathbb{N}$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfonylalkyl, alkylsulfonylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylsulfanylalkyl, arylsulfonylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl), arylsulfonylalkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heterocycle,

heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, nitroalkyl, $R_aR_bN_-$, $R_aR_bNalkyl_-$, $R_aR_bNC(O)$ alkyl_, $R_aR_bNC(O)$ Alkyl

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN -, N_3 -, R_cS -, wherein R^4 is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heteroeyele, heteroeyelealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R,Ra,N-R,c(O)-, R,S-, R,(O)S-, R,G,(O)S-, R,Ra,Nalkyl-, R,G(O)SN(R₂)-, R,Sc)2N(R₂)-, R,G(O)SN(R₂)-, R,G(O)SN(R₂)-, R,G(O)SN(R₂)-, R,G(O)SN(R₂)-, R,G(O)SN(R₂)-, R,G(O)SN(R₂)-, R,G(O)-, R,

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_{ab} - $S(O)R_a$, - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_a , - NR_aR_b , - SR_a , - SO_aR_a , - SO_aR_a , - $C(O)OR_a$, - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 $R_a \ and \ R_b, \ at each occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkenyl, cycloalkenyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkyl, R,alo, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, nitroalkyl, R,alo, R$

haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_d;

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR,R_d), -alkylSO₂NR_cR_d, -alkylC(O)NR,R_d, -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR,R_d;

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, ${}^{*}NR_dR_{bs}$, ${}^{*}CO(R_c)$, ${}^{*}SR_6$, ${}^{*}SOR_5$,

alternatively, R_c and R_{db} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR₂), -(alkyl)(NR₂R_h), -SR₄, -S(O)R₄, -S(O)₂R₅, -OR₅, -N(R₂)(R_h), -C(O)R₅, -C(O)OR₅ and -C(O)NR₃R_h;

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm 5}$ $R_{\rm g}$ and $R_{\rm h}$, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each $R_{\rm f}$, $R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -N(alkyl), -N(alkyl), -S(alkyl), -S(O)(alkyl), $-SO_3alkyl$, -alkyl-OH, -al

-alkylS(O)(alkyl), -alkylSO₂alkyl, -N(H)C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH₂, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_1 and R_h together with the nitrogen atom to which they are attached form a three-to seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_2$, -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(alkyl), -S(o)(alkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkylNH_2$, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(O(alkyl), $-alkylSO_2alkyl$, $-alkylN(alkyl)_2$, $-N(H)C(O)NH_2$, -C(O)OH, -C(O)O(alkyl), -C(O)Alkyl, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$), $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$), and $-C(O)N(alkyl)_2$;

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aC(O)alkyl-, R_aC(O)-, R_aC(O)-, R_aSol-, R

with the proviso that when R^4 is hydroxy or R_oS_τ , and R^5 is hydrogen, unsubstituted alkyl, halo or $-OR_k$, and R^6 is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heteroacyclealkyl, $-SR_{as}$, $-S(O)R_{as}$, $-OR_k$, $-OR_k$, $-N(R_o)(R_b)$, $-C(O)R_{as}$, $-C(O)OR_a$ and $-C(O)NR_aR_b$, then R^1 is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroarylalkenyl, heteroarylalkyl, heteroarylalk

- 26. (original) The compound of claim 25 wherein R⁴ is hydroxy.
- 27. (original) The compound of claim 26 wherein R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl,

haloalkyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R_aR_bN-, R_aR_bNalkyl-, R_aR_bNC(O)alkyl-, R_tR_oC=N- and R_bO-.

28. (original) The compound of claim 21 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:

 $N-\{\{3-[1-(\text{cyclobutylamino})-4-\text{hydroxy-}2-\text{oxo-}1,2-\text{dihydro-}3-\text{quinolinyI}]-1,1-\text{dioxido-}4H-\text{thieno}\\ [2,3-e][1,2,4]\text{thiadiazin-}7-y1\}\text{methyl)urea};$

1-benzyl-4-hydroxy-3-{7-[(methoxymethoxy)methyl]-1,1-dioxido-4*H*-thieno[2,3-*e*][1,2,4] thiadiazin-3-yl}quinolin-2(1*H*)-one;

 $1-Benzyl-4-hydroxy-3-[7-(hydroxymethyl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-3-yl] \\ quinolin-2(1H)-one;$

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxylic acid 1,1-dioxide;

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;

 $3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-(2-hydroxyethyl)-4H-thieno[2,3-e]\\ [1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;$

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(1S)-2-hydroxy-1-(aminocarbonyl) ethyl]-4H-thieno[2,3-e][1,2,4]thiadiazine-7-earboxamide 1,1-dioxide;

 $\label{eq:N-2-amino-2-oxocthyl)-3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;$

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(1S)-2-hydroxy-1-methylethyl]-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N,N-bis(2-hydroxyethyl)-4H-thieno[2,3-el[1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[2-hydroxy-1-(hydroxymethyl)ethyl]-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;

l-benzyl-4-hydroxy-3-(7-{[(3R)-3-hydroxypyrrolidin-1-yl]carbonyl}-1,1-dioxido-4H-thieno[2,3-c][1,2,4]thiadiazin-3-yl)quinolin-2(1H)-one;

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-(3-hydroxypropyl)-4H-thieno[2,3-e] [1,2,4]thiadiazine-7-earboxamide 1,1-dioxide;

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(2S)-2,3-dihydroxypropyl]-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;

3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(1S)-1-(hydroxymethyl)propyl]-4H-1-(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)propyll(hydroxymethyl)p

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- thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;
- 3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(1S)-1-(hydroxymethyl)-2-methyl propyl]-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;
- 3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[2-hydroxybutyl]-4H-thieno[2,3-e] [1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;
- 3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-N-[2-hydroxy-2-(4-hydroxyphenyl) ethyl]-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;
- 1-benzyl-3-[1,1-dioxido-7-(piperazin-1-ylcarbonyl)-4H-thieno[2,3-e][1,2,4]thiadiazin-3-yl]-4-hydroxyquinolin-2(1H)-one;
- N-[5-(aminocarbonyl)pyridin-2-yl]-3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-4H-thieno[2,3-e][1,2,4]thiadiazine-7-carboxamide 1,1-dioxide;
- [3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4] thiadiazin-7-yl]methyl carbamate;
- [3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4]\$ thiadiazin-7-yl]methyl aminocarbonylcarbamate;
- 3-[7-(azidomethyl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-3-yl]-1-benzyl-4-hydroxy quinolin-2(1H)-one:
- 3-[7-(aminomethyl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-3-yl]-1-benzyl-4-hydroxy~quinolin-2(1H)-one;
- N-{[3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4] thiadiazin-7-vllmethyl} methanesulfonamide:
- $N-\{[3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4] \\ thiadiazin-7-yl]methyl\}nicotinamide;$
- N-{[3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4] thiadiazin-7-yl]methyl}morpholine-4-carboxamide;
- $N-\{[3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4]$ thiadiazin-7-yl]methyl}-2-hydroxyacetamide;$
- $1-[(cyclopropylmethyl)amino]-4-hydroxy-3-\{7-[(methoxymethoxy)methyl]-1,1-dioxido-4H-thieno[2,3-e][1,2,4]|thiadiazin-3-yl\}| quinolin-2(1H)-one;$
- 1-[(cyclopropylmethyl)amino]-4-hydroxy-3-[7-(hydroxymethyl)-1,1-dioxido-4H-thieno[2,3-e] [1,2,4]thiadiazin-3-yl]quinolin-2(1H)-one;
- $N-[(3-\{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl\}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]methanesulfonamide;$

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-el[1,2,4]thiadiazin-7-v]methyllethanesulfonamide:

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-v])methyl]propane-1-sulfonamide;

N-[(3-{1-{(cyclopropylmethyl)amino}-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-el[1,2,4]thiadiazin-7-v]methyl]propane-2-sulfonamide:

 $N-[(3-\{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl\}-1,1-dioxido-4H-thicno[2,3-e][1,2,4]lhiadiazin-7-yl)methyl]benzenesulfonamide; and$

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thicno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]-1-phenylmethanesulfonamide.

29. (original) The compound of claim 20 wherein R² and R³, together with the carbon atoms to which they are attached form a pyridyl ring.

30. (original) The compound of claim 1 of formula (VIa)

$$\underset{m(R^6)}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{Q}{\longleftarrow}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}} \underset{N}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}{\overset{N}}{\overset{N$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, holoalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heterocycle, heterocyclealkyl, heteroarylalkyl, hydroxyalkyl, nitroalkyl, $R_aR_bN-R_aR_bNalkyl-$, $R_aR_bNC(O)alkyl-$, $R_aR_bNC(O)NR_calkyl-$, $R_$

R⁴ is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN-, N₃-, R_cS-, wherein R⁴ is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano. -OH. -NH₂, and -COOH:

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylearbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN-, R_aC(O)-, R_aS-, R_a(O)₂S-, R_aR_bNalkyl-, R_a(O)SN(R_i)-, R_aSO₂N(R_i)-, R_aC(O)-, R_bC(O)-, R_bC

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroacycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_a , - $S(O)R_a$, - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_a , - NR_aR_b , - SR_a , - SO_aR_a , - SO_aR_a , - $C(O)OR_a$, - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 $R_a \ and \ R_b, \ at each \ occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkenyl, eycloalkenyl, eycloalkenyl, eycloalkenyl, eycloalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, R_R_A, R_$

alternatively, R_a and R_{b_b} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl,

 $\label{eq:haloalkoxy}, aryl, heteroaryl, heteroacycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), \\ -(alkyl)(NR_cR_d), -alkylSO_2NR_cR_d, -alkylC(O)NR_cR_d, -SR_c, -S(O)R_c, -S(O)_2R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, \\ -C(O)OR_c and -C(O)NR_cR_d;$

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_dR_b$, $-OR_5$, $-CO(R_t)$, $-SR_5$, $-SOR_5$, $-SO_2R_5$, $-C(O)NR_dR_b$, $-SO_2NR_dR_b$, $-C(O)OR_6$ alkenyl, alkyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_b), -(alkyl)(NR_dR_b), -SR_5, -S(O)R_5, -S(O)_3R_5, -OR_5, -N(R_c)(R_b), -C(O)R_5, -C(O)OR_5, -C(O)NR_dR_b, -C(O)N(II)NR_dR_b, -N(R_c)C(O)OR_5, -N(R_c)SO_2NR_dB_b, -N(R_c)C(O)NR_cR_b, -alkylN(R_c)C(O)OR_5, -alkylN(R_c)SO_3NR_dR_b, and -alkylN(R_c)C(O)NR_dR_b;

alternatively, R_c and R_{ds} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR₂), -(alkyl)(NR₂R_b), -SR₅-S(O)R₅-S(O)₂R₅-OR₅-N(R₂)(R_b), -C(O)R₅-C(O)OR₇ and -C(O)NR₃R_b;

R_o is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm f}, R_{\rm g}$ and $R_{\rm h}$, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each $R_{\rm f}, R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(O)(alkyl), $-SO_{2}alkyl$, -alkyl-O-alkyl, -alkyl, -alkyl-O-alkyl, -alkyl, -alkyl

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each

of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, —OH, -O(alkyl), -NH23, -N(H)(alkyl), -N(alkyl)23, -S(alkyl), -S(olkyl), -S(ol(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkylNH2, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(O(alkyl), -alkylSO3alkyl, -alkylN(alkyl)23, -N(H)C(O)NH23, -C(O)OH, -C(O)O(alkyl), -C(O)Alkyl, -C(O)NH23, -C(O)NH24, -C(O)N(H)(alkyl), and -C(O)N(alkyl)3;

 $R_k \ is \ selected \ from \ the \ group \ consisting \ of \ hydrogen, \ alkenyl, \ alkyl, \ aryl, \ arylalkyl, \ cyanoalkyl, \ cycloalkenyl, \ cycloalkylalkyl, \ formylalkyl, \ haloalkyl, \ heteroaryl, \ heteroarylalkyl, \ haloalkyl, \ haloalkoxy, \ aryl, \ heteroaryl, \ heteroarylalkyl, \ heteroarylalkyl, \ alkoxyalkoxyalkyl, \ -(alkyl)(NR_k), -(alkyl)(NR_k), -SR_c, -S(O)R_c, -S(O)R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, \ and \ -C(O)NR_d, \ -C(O)R_d, \ -C(O)R_d, \ -C(O)NR_d, \ -C(O)R_d, \ -C(O)$

m is 0, 1, 2, 3, or 4:

with the proviso that R^4 is alkoxy, aryloxy, hydroxy or R_sS -, and R^5 is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heteroeyelealkyl, eyeloalkyl, eyano, nitro, R_aR_bN -, $R_aC(O)$ -, R_sS -, $R_a(O)$ -, R_aS_bN -, $R_aC(O)$ -, R_aS_bN -, or G-, G-,

- 31. (original) The compound of claim 30 wherein R4 is hydroxy.
- 32. (original) The compound of claim 31 wherein R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroarylalkenyl, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R₃R₅N-, R₃R₆Nalkyl-, R₃R₆NC(O)alkyl-, R₃R₆C=N- and R₄O-.

33. (original) The compound of claim 1 of formula (VIb)

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, cyanoalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl) alkenyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heterocycle, heterocyclealkyl, heteroxylalkyl, hydroxyalkyl, nitroalkyl, $R_aR_bN-R_aR_bAlkyl-$, $R_aR_bNC(O)$ alkyl-, $R_$

R⁴ is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN-, N₃-, R_cS-, wherein R⁴ is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, eyano, -OH, -NH₃, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylatkyl, arylearbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN-R, R_c(CO)-F, R_aS-F, R_d(O)₂S-F, R_aR_bNalkyl-F, R_a(O)₂SN(R_t)-R_tR_cOS₂N(R_t)-R_tR_cOS₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNC(O)-R_tR_cOC(O)-R_tR_cOC(O)-R_tR_cOC(O)-R_tR_cOS₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tR_tNSO₂N(R_t)-R_tR_tNSO

R6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl,

alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(NR_aR_b), - SR_{as} - $S(O)R_{as}$ - $S(O)_2R_{as}$ - OR_{ks} - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_{as} - NR_aR_{bs} - SR_{as} - SO_2R_{as} - $C(O)OR_{as}$ - $C(O)NR_aR_b$ and - $NC(O)R_a$;

 $R_a \ and \ R_b, \ at each occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkyl, R, deteroarylalkyl, R, deteroarylalkyl, R, deteroarylalkyl, R, deteroarylalkyl, R, deteroarylalkyl, R, deteroarylalkyl, wherein R, and R, are substituted with 0, 1 or 2 substituents selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroar$

alternatively, R_a and R_{bs} together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(OR_c), -alkyl OR_c 0, -alkyl OR_c 0

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_cR_{bb} - CO(R_c) - SR_6 - SOR_6 - SOR_6 - SON_6 - C(O)NR_cR_b - SO_2NR_cR_{bb} - C(O)OR_6$ alkenyl, alkyl, alkyl, cycloalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_6), -(alkyl)(NR_cR_b), -SR_6 - S(O)_2R_6 - S(O)_2R_6 - N(R_c)(R_b), -C(O)R_6 - C(O)OR_6 - C(O)NR_cR_b, -C(O)N(H)NR_cR_b, -N(R_c)C(O)OR_6 - N(R_c)SO_2NR_cR_b, -N(R_c)C(O)NR_cR_b, -alkylN(R_c)C(O)NR_cR_b, and -alkylN(R_c)C(O)NR_cR_b, -N(R_c)C(O)NR_cR_b, -N(R_c)C(O)NR_c

alternatively, R_c and R_{ds} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the

heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_i), -(alkyl)(NR_iR_b), -SR_b -S(O)R_b -S(O)₂R_b -OR_b -N(R_b)(R_b), -C(O)R_b -C(O)OR_c and -C(O)NR_sR_b:

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm f}, R_{\rm g} \ and \ R_{\rm b}, \ at \ each \ occurrence, \ are \ independently \ selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, evcloalkenyl, evcloalkenyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each <math>R_{\rm f}, R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, elakynly, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), -N(alkyl), -S(alkyl), -S(o)(alkyl), -So_2alkyl, -alkyl-O-alkyl, -OH, -1kyl-O-alkyl, -R(hylN(H)(alkyl), -alkylN(alkyl), -alkylS(alkyl), -alkylSO_2alkyl, -N(H)(C(O)NH2, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH2, -C(O)N(H)(alkyl), and -C(O)N(alkyl), and -C(O)N(alkyl), -C(O)N(H)(alkyl), and -C(O)N(alkyl), alkylSo_alkyl, -N(H)(alkyl), alkylSo_alkyl), -N(H)(

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_r and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -NH, -N(H)(alkyl), -N(alkyl), -S(alkyl), -S(alkyl), -S(o)(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkyl-NH, -alkyl-N(H)(alkyl), -alkyl-S(alkyl), -alkyl-S(O)(alkyl), -alkyl-SO(alkyl), -alkyl-SO(al

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, eyanoalkyl, eycloalkenyl, eycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heteroeyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aC(O)-, R_aC(O

-C(O)NR_cR_d; and

m is 0, 1, 2, 3, or 4:

with the proviso that when R^4 is hydroxy or R_oS -, and R^3 is hydrogen, unsubstituted alkyl, halo or $-OR_k$, and R^6 is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heteroacyclealkyl, $-SR_o$, $-S(O)R_o$, $-S(O)_2R_o$, $-OR_k$, $-N(R_o)(R_b)$, $-C(O)R_o$, $-C(O)OR_o$, and $-C(O)NR_oR_b$, then R^1 is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroarylalkenyl, heteroarylalkyl, heterocyclealkenyl or heterocyclealkyl.

- 34. (original) The compound of claim 33 wherein R4 is hydroxy.
- 35. (original) The compound of claim 34 wherein R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R₃R₅N-, R₃R₆Nalkyl-, R₃R₆NC(O)alkyl-, R₄R₆C=N- and R₅O-.
- 36. (original) The compound of claim 29 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:

 $1-butyl-4-hydroxy-3-\{7-\{(methoxymethoxy)methyl\}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]\\ thiadiazin-3-yl\}-1,8-naphthyridin-2(1H)-one;$

1-butyl-4-hydroxyy-3-[7-(hydroxymethyl)-1,1-dioxido-4H-thicno[2,3-e][1,2,4]thiadiazin-3-yl]-1.8-naphthyridin-2(1H)-one;

methyl 3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl)-4*H*-thieno[2,3-*e*][1,2,4] thiadiazine-7-carboxylate 1.1-dioxide:

4-hydroxy-3-{7-[(methoxymethoxy)methyl]-1,1-dioxido-4*H*-thieno[2,3-*e*][1,2,4]thiadiazin-3-yl}-1-(3-methylbutyl)-1,8-naphthyridin-2(1*H*)-one; and

 $\label{lem:condition} 4- hydroxy-3-[7-(hydroxymethyl)-1,1-dioxido-4\emph{H-}thieno[2,3-e][1,2,4]thiadiazin-3-yl]-1-(3-methylbutyl)-1,8-naphthyridin-2(1\emph{H})-one.$

37. (original) The compound of claim 19 wherein A is pyridyl.

38. (original) The compound of claim 1 of formula (VII)

$$\prod_{m(R^6)} \frac{\prod_{i=1}^{R^4} \prod_{j=1}^{N} \prod_{i=1}^{N} (R^5)_n}{\prod_{i=1}^{N} (VII)}$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylcarbonylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, arylalkenyl, arylalkyl, arylsulfanylalkyl, arylsulfinylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenylalkyl, cycloalkenylalkyl, cycloalkenylalkyl, beteroarylalkyl, alkozyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, hydroxyalkyl, nitroalkyl, RaRbN-, RaRbAlkyl-, RaRbNC(O)alkyl-, RaRbNC(O)Oalkyl-, RaBNC(O)Oalkyl-, RaBN

R⁴ is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN-, N₃-, R_cS-, wherein R⁴ is substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano, -OH, -NH₂, and -COOH;

 R^5 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, $R_a R_b N^-$, $R_a (CO) S^-$, $R_a (O) S^-$, $R_a R_b N^-$, $R_a (O) SN(R_t)$ -, $R_a SO_2 N(R_t)$ -, $R_a R_b N^-$, $R_a R_b$

R6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl,

alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)($N_{\rm s}$, -(alkyl)($N_{\rm s}$, - $N_{\rm s}$, -S($N_{\rm s}$), -S($N_{\rm s}$), -S($N_{\rm s}$), -S($N_{\rm s}$), -C(O)OR_s, -C(O)OR_s, and -C(O)NR_sR_s; wherein each R⁶ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, -OR_s, -NR_s, -SR_s, -SOR_s, -SO₂R_s, -C(O)OR_s, -C(O)NR_sR_s and -NC(O)R_s;

 R_a and R_b , at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyla, alkylsulfanylalkyl, aryl, arylalkyl, cyanoalkyl, cycloalkyla, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, partialkyl, haloalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkyl, R_a 0. R_b0. R

alternatively, R_a and R_{bs} together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(OR_c), -alkyl OR_c 0, -alkyl OR_c 0

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, -NR_iR_b-OR₆, -CO(R_i), -SR₆-SOR₆, -SO_R₆, -C(O)NR_iR_b, -C(O)OR₆ alkenyl, alkyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR₆), -(alkyl)(NR_iR_b), -SR₆, -S(O)R₆, -S(O)₂R₆, -OR₆, -N(R_i)(R_b), -C(O)R₆, -C(O)OR₅, -C(O)NR_iR_b, -C(O)M(H)NR_iR_b, -N(R_i)C(O)OR₆, -N(R_i)SO₂NR_iR_b, -N(R_i)C(O)NR_iR_b, -alkylN(R_i)C(O)NR_iR_b, and -alkylN(R_i)C(O)NR_iR_b;

alternatively, R_c and R_{ds} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the

heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_i), -(alkyl)(NR_iR_b), -SR_b -S(O)R_b -S(O)₂R_b -OR_b -N(R_b)(R_b), -C(O)R_b -C(O)OR_c and -C(O)NR_sR_b:

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{5}\ R_{g}\ and\ R_{h},\ at\ each\ occurrence,\ are\ independently\ selected\ from\ the\ group\ consisting\ of\ hydrogen,\ alkyl,\ alkenyl,\ aryl,\ arylalkyl,\ cycloalkyl,\ cycloalkenylalkyl,\ cycloalkenylalkyl,\ heterocycle,\ heterocyclealkyl,\ heterocycle,\ heterocyclealkyl,\ heteroarylalkyl;\ wherein\ each\ R_{r}\ R_{g}\ and\ R_{h}\ is\ independently\ substituted\ with\ 0,\ 1,\ 2\ or\ 3\ substituents\ independently\ selected\ from\ the\ group\ consisting\ of\ alkyl,\ alkenyl,\ alkynyl,\ eyano,\ halo,\ oxo,\ nitro,\ aryl,\ arylalkyl,\ cycloalkyl,\ cycloalkenyl,\ heterocycle,\ h$

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_r and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -NH, -N(H)(alkyl), -N(alkyl), -S(alkyl), -S(alkyl), -S(o)(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkyl-NH, -alkyl-N(H)(alkyl), -alkyl-S(alkyl), -alkyl-S(O)(alkyl), -alkyl-SO(alkyl), -alkyl-SO(al

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, eyanoalkyl, eycloalkenyl, eycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heteroeyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aC(O)-, R_aC(O

-C(O)NR_cR_d;

m is 0, 1, 2, 3, or 4; and

n is 0, 1, 2, 3 or 4;

with the proviso that when R⁴ is alkoxy, aryloxy, hydroxy or R₆S-, and R⁵ is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heterocyclealkyl, cycloalkyl, cyano, nitro, R₈R₆N-, R₆C(O)-, R₈S-, R₈(O)S-, R₈C(O)S-, R₈SO₂N(R_t)-, R₈R₆NC(O)-, R₈C(O)-, R₈R₆NSO₂- or -OR₈, and R⁶ is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heterocyclealkyl, -SR₈-S(O)R₈-S(O)₂R₈, -OR₈, -N(R₈)(R₆), -C(O)R₈, -C(O)OR₈ and -C(O)NR₈R₆, then R¹ is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroaryl, heteroarylalkyl, heterocyclealkyl, heterocyclealkyl.

- 39. (original) The compound of claim 38 wherein R4 is hydroxy.
- 40. (original) The compound of claim 39 wherein R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R_aR_bN-, R_aR_bNalkyl-, R_aR_bNC(O)alkyl-, R_tR_aC=N- and R_bO-.
- 41. (original) The compound of claim 37 wherein R² and R³, together with the carbon atoms to which they are attached, form a pyridyl ring.
 - 42. (original) The compound of claim 41 wherein R4 is hydroxy.
- 43. (original) The compound of claim 42 whererin R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkynyl, arylalkenyl, arylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, cyanoalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, R_aR_bN, R_aR_bNalkyl-, R_aR_bNC(O)alkyl-, R_iR_gC=N- and R_bO-.

44. (original) The compound of claim 1 having formula (I),

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

A is a monocyclic or bicyclic ring selected from the group consisting of aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocycle;

R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl)alkenyl, (cycloalkyl)alkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylsulfonylalkyl, heteroarylsulfonylalkyl, heterocycle, heterocyclealkenyl, heteroarylalkyl, hitoralkyl, RaRbN-, RaRbNalkyl-, RaRbNC(O)alkyl-, RaRbNC(O)Oalkyl-, RaRbNC(O)Oalkyl-,

 R^2 and R^3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl, alkoxyalkyl, alkoxyarbonyl, alkyl, aryl, arylalkyl, heteroaryl, heteroeycle, heteroarylalkyl, cyano, halo, -N(R_a)(R_b), R_aR_bNC(O)-, -SR_a, -S(O)R_a, -S(O)₂R_a and R_aC(O)-; wherein R^2 and R^3 are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of R_a, alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), -SR_a, -S(O)R_a, -S(O)-R_a, -N(R_a)(R_b), -C(O)R_a, and -C(O)NR_a, -OR_a, -N(R_a)(R_b), -C(O)R_a, and -C(O)NR_a, -OR_a, -N(R_a)(R_b), -C(O)R_a, -C(O)R_a, and -C(O)NR_a, -OR_a, -N(R_a)(R_b), -C(O)R_a, -C(O)R_a, and -C(O)NR_a, -OR_a, -N(R_a)(R_b), -C(O)R_a, -C(O)R_a, and -C(O)R_a, -C(O)R_a, -C(O)R_a, -C(O)R_a, -C(O)R_a, and -C(O)R_a, -C(O

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, $R_aR_bN_\tau$, $N_{3\tau}$, R_aS_τ , wherein R^4 is independently substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano, -OH, -NH $_{\circ}$, and -COOH;

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylatkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl,

nitro, R_aR_bN -, $R_aC(O)$ -, R_aS -, $R_a(O)S$ -, $R_a(O)_2S$ -, $R_aR_bNalkyl$ -, $R_a(O)SN(R_t)$ -, $R_aSO_2N(R_t)$ -, $R_a(O)SN(R_t)$ -, $R_aSO_2N(R_t)$ -,

 $R_a \ and \ R_b, \ at each occurrence, \ are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkenyl, cycloalkenyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, keteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, Redonalkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroaryl, alkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_Rd_l), -SR_a, -SO)_Re, -SO)_Re, -SO,_Re, -SO,_Re, -N(R_c)(R_d), -C(O)Re, -C(O)OR_c and -C(O)NR_Rd_i;$

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkylSO₂NR_cR_d, -alkylC(O)NR_cR_d, -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_d;

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, -NR_iR_b, -CO(R_i), -SR₆, -SOR₆, -SO_R6, -C(O)NR_iR_b, -C(O)NR_iR_b, -C(O)OR₆ alkenyl, alkyl, alkynyl, eycloalkyl, eycloalkyl, eycloalkyl, kynyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_i), -(alkyl)(NR_iR_b), -SR₆, -S(O)R₆, -S(O)₂R₆, -OR₅, -N(R₂)(R_b), -C(O)R₆, -C(O)NR_iR_b, -C(O)N(H)NR_iR_b, -N(R_c)C(O)OR₆, -N(R_c)SO₂NR_iR_b, -N(R_c)C(O)NR_iR_b, -R(R_c)C(O)NR_iR_b, and -alkylN(R_c)C(O)NR_iR_b.

alternatively, R_c and R_d , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyyl, -(alkyl)(OR_{ℓ}), -(alkyl)(NR_{ℓ}R_h), -SR_{ℓ s}-S(O)R_{ℓ s}-S(O)₂R_{ℓ s}-OR_{ℓ s}-OR_{ℓ s}-OR_{ℓ s}-O(O)R_{ℓ s}-C(O)OR_{ℓ} and -C(O)NR_{ℓ}R_h;

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm f}$ $R_{\rm g}$ and $R_{\rm h}$, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each $R_{\rm f}$, $R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyanon, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(o)(alkyl), $-So_{2}alkyl$, -alkyl-O-alkyl, -alkyl-O-alkyl, -alkyl-Olkyl, -alkyl, -alky

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_2$, -N(H)(alkyl), $-N(alkyl)_3$, -S(alkyl), -S(alkyl), -S(O(alkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkyl-NH_2$, -alkyl-N(H)(alkyl), -alkylS(alkyl), -alkylS(O(alkyl), -alkyl-O(alkyl), $-alkyl-O(O)NH_2$, $-C(O)NH_2$, $-C(O)N(H_2(alkyl))$, $-O(O)N(H_2(alkyl))$, -

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aR_bNC(O)-, R_aSO₂-, R_aSalkyl-, R_a(O)Salkyl-, R_aSO₂alkyl-, R_aOC(O)-, R_a

haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_d: and

n is 0, 1, 2, 3, or 4.

45. (original) The compound of claim 44 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:

1-benzyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-2(1H)-pyridinone;

1-benzyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-5,6-dimethyl-2(1H)-pyridinone;

3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-5,6-dimethyl-1-(3-methylbutyl)-2(1H)-pyridinone;

3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1-(2-ethylbutyl)-4-hydroxy-5,6-dimethyl-2(1H)-pyridinone;

1-benzyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-6-phenyl-2(1H)-pyridinone; 1,5-dibenzyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-4-hydroxy-6-methyl-2(1H)-pyridinone;

 $3 \cdot (1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-1-(2-ethylbutyl)-4-hydroxy-6-methyl-5-phenyl-2(1H)-pyridinone;$

1-butyl-3-(1,1-dioxido-4H-1,2,4-benzothiadiazin-3-yl)-2(1H)-pyridinone;

N-{3-[4-hydroxy-1-(3-methylbutyl)-2-oxo-1,2-dihydropyridin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl} methanesulfonamide;

N-[3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydropyridin-3-yl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl] methanesul fonamide;

N-[3-(4-hydroxy-2-oxo-1,2-dihydro-3-pyridinyl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl] methanesulfonamide:

 $N-[3-(4-\text{hydroxy-1-isopentyl-5,6-dimethyl-2-oxo-1,2-dihydro-3-pyridinyl)-1,1-dioxido-4\textit{H-1,2,4-benzothiadiazin-7-yl}] methanesulfonamide;$

benzyl 3-[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro-3-pyridinyl)-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl]diazathiane-1-carboxylate 2,2-dioxide;

N=[3-(4-hydroxy-1-isopentyl-2-oxo-1,2-dihydro-3-pyridinyl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl]sulfamide;

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- N-{3-[1-(cyclobutylmethyl)-4-hydroxy-2-oxo-1,2-dihydro-3-pyridinyl]-1,1-dioxido-4*H*-1,2,4-benzothiadiazin-7-yl} methanesulfonamide:
- N-{3-[5-bromo-1-(cyclobutylmethyl)-4-hydroxy-2-oxo-1,2-dihydro-3-pyridinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl} methanesulfonamide; and
- N-[3-(4-hydroxy-1-isopentyl-2-oxo-5-vinyl-1,2-dihydro-3-pyridinyl)-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-vllmethanesulfonamide.
- 46. (original) The compound of claim 1 wherin R² and R³, together with the carbon atoms to which they are attached, form a cycloalkyl ring.
- 47. (original) The compound of claim 1 wherin R² and R³, together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of thienyl, furanyl, pyrrolyl, imidazolyl, oxazolyl, thiazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, triazolyl, thiadiazolyl, tetrazolyl, phenyl, pyridyl, pyridazinyl and pyrimidinyl; wherein said ring is optionally substituted with (R⁶)_m; wherein

 $R^6 \ is \ independently \ selected \ at \ each \ occurrence \ from \ the \ group \ consisting \ of \ alkyl, \ alkenyl, \ alkynyl, \ halo, \ cyano, \ nitro, \ haloalkyl, \ haloalkoxy, \ aryl, \ heteroaryl, \ heteroaryla \ lkyl, \ heteroarylalkyl, \ cyano, \ S(O)_2R_a, \ -OR_k, \ -N(R_a)(R_b), \ -C(O)R_a, \ -S(O)_2R_a, \ -S(O)_2R_a, \ -S(C)_2R_a, \ -S(O)_2R_a, \ -S(O)_2$

- 48. (original) The compound of claim 47 wherein R⁴ is hydroxy.
- 50. (original) The compound of claim 1 wherein A is a bicyclic ring selected from the group consisting of heterocycle and heteroaryl.
- 51. (original) The compound of claim 50 wherein A is selected from the group consisting of naphthyl, indolizinyl, indolyl, isoindolyl, benzofuranyl, benzothienyl, indazolyl, benzimidazolyl, benzosazolyl, benzosazolyl, benzosazolyl, benzosazolyl, benzosazolyl, benzosazolyl, penzosazolyl, penzo

52. (original) The compound of claim 1 of formula (VIII)

$$\begin{array}{c|c} R^4 & N & X \\ R^3 & N & N \\ R^2 & N & N \end{array}$$

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

X is NH, N(alkyl), O or S.

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl) alkyl, beteroarylalkyl, baloalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylsulfonylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, nitroalkyl, R_8R_8N -, R_8R_8N alkyl-, R_8R_8N C(O)alkyl-, R_8R_8N C

 R^2 and R^3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl, alkoxyalkyl, alkoxyarbonyl, alkyl, aryl, arylalkyl, heteroaryl, heterocycle, heteroarylalkyl, cyano, halo, -N(R_a)(R_b), R_aR_bNC(O)-, -SR_a, -S(O)R_a, -S(O)₂R_a and R_aC(O)-; wherein R^2 and R^3 are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of R_a, alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, -(alkyl)(OR_a), -(alkyl)(NR_aR_b), -SR_a, -S(O)R_a, -S(O)-SR_a, -N(R_a)(R_b), -C(O)R_a, -C(O)OR_a and -C(O)NR_aR_b;

alternatively, R^2 and R^3 , together with the carbon atoms to which they are attached form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl and heterocycle is optionally substituted with $(R^6)_m$;

R⁴ is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN-, N₃-, R_cS-, wherein R⁴ is independently substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, evano, -OH, -NH-, and -COOH:

R⁵ is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R,R,RN, R,C(O)-, R,S-, R,(O)S-, R,(O)S-, R,R_bNalkyl-, R,(O)SN(R;)-, R,SO₂N(R;)-, R,C(O)-, R,QO(O)-, R,QO(O)-, R,QO(O)-, R,QO(O)-, R,R_bNSO₂N(R;)-alkyl-, R,R_bNCO(O)-, R,QO(O)-, R,QO(O)-,

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_a , - $S(O)R_a$, - $S(O)2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_a , - NR_aR_b , - SR_a , - SO_3R_a , - SO_3R_a , - $C(O)OR_a$, - $C(O)NR_aR_b$, and - $NC(O)R_a$;

 R^7 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, $R_aR_bN-R_a(CO)-R_aS-R_a(O)S-R_a(O)S-R_aR_bNalkyl-R_a(O)SN(R_d)-R_aSO_2N(R_d)-R_aCO(O)-R_aSO_2N(R_d)-R_aR_bNSO_2N(R_d)-R_aR_bNSO_2N(R_d)-R_aR_bNCO(O)-R_bO(O)-R_bO(O)-R_bO(O)-R_bO(O)-R_bO(O)-R_bN_bNSO_2R_d)-R_bNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2N(R_d)-R_dNSO_2$

 R_a and R_b , at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, Redan-, RkO-, RkOalkyl-, RgRalNalkyl-, RgRalNC(O)alkyl-, RgSO2-, RgSO2alkyl-, RcC(O)-, RcC(O)alkyl-, RcC(O)-, RcC(O)alkyl-, RgRalNC(O)-, RcRalNC(O)Oalkyl-, RgRalNC(O)N(Rg)alkyl-, wherein R_a and R_b are substituted with 0, 1 or 2 substituents

selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_o -S(O)R_o -S(O)R_o -OR_o -N(R_c)(R_d), -C(O)R_o -C(O)OR_o and -C(O)NR_cR_d;

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkylSO₂NR_cR_d, -alkylC(O)NR_cR_d, -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d.

 R_c and R_{db} , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_dR_{bc}$ - $CO(R_c)$, $-SR_5$ - SOR_5 , $-SO_2R_5$ - $C(O)NR_dR_{bc}$ - $SO_2NR_gR_{bc}$ - $C(O)OR_5$ alkenyl, alkyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_f), -(alkyl)(NR_gR_b), -SR_5, -S(O)R_5, -S(O)_2R_5, -OR_5, -N(R_c)(R_b), -C(O)R_5, -C(O)OR_5, -C(O)NR_gR_b, -C(O)N(H)NR_gR_b, -N(R_c)C(O)OR_5, -N(R_c)SO_2NR_gR_b, -N(R_c)C(O)NR_gR_b, -alkylN(R_c)C(O)OR_5, -alkylN(R_c)SO_3NR_gR_b, and -alkylN(R_c)C(O)NR_gR_b;

alternatively, R_c and R_d , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, eyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR $_c$), -(alkyl)(NR $_c$ R $_b$), -SR $_c$ -S(O)R $_c$ -S(O) $_z$ R $_c$ -OR $_c$ -N($_z$)(R $_b$), -C(O)R $_c$ -C(O)OR $_c$ and -C(O)NR $_c$ R $_a$:

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 R_b , R_g and R_h , at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each R_b , R_g and R_h is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, +O(alkyl), +N(alkyl), +N(alkyl), +S(alkyl), +S(O)(alkyl), $+SO_{alkyl}$.

-alkyl-OH, -alkyl-O-alkyl, -alkylNH₂, -alkylN(H)(alkyl), -alkylN(alkyl)₂, -alkylS(alkyl),
-alkylS(O)(alkyl), -alkylSO₂alkyl, -N(H)C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH₂,
-C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

alternatively, R_r and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_2$, -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(O(alkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkyl-NH_2$, -alkyl-N(H)(alkyl), -alkyl-S(alkyl), -alkyl-S(O(alkyl), $-alkyl-SO_2alkyl$, $-alkyl-N(alkyl)_2$, $-N(H)C(O)NH_2$, -C(O)O(alkyl), -C(O)N(alkyl), -C(O)N(alky

 R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkylalkyl, formylalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bAlkyl -, R_aOkyl -, $R_aCO(O)$ -, $R_aR_bNC(O)$ -, $R_aCO(O)$ -, R

m is 0, 1, 2, 3, or 4; and n is 0, 1 or 2.

- 53. (original) The compound of claim 52 wherein R^2 and R^3 , together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl and heterocycle is optionally substituted with $(R^6)_{m}$.
- 54. (original) The compound of claim 53 wherein R² and R³, together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of phenyl, pyridyl pyridazinyl, pyrimidinyl, pyrazolyl, cyclopentyl, cyclohexyl and thienyl.

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 - 55. (original) The compound of claim 54 wherein R⁴ is hydroxy.
- 56. (original) The compound of claim 55 or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof selected from the group consisting of:
- 3-(1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl)-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
- 3-[8-(chloromethyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxyl-(isobutylamino)quinolin-2(1H)-one;
- 3-{3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-[1,3] oxazolo[5,4-h][1,2,4|benzothiadiazin-8-yl}propanoic acid;
- $3-(8-\{[(2-aminoethyl)amino]methyl\}-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl)-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;$
- methyl {3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-[1,3] oxazolo[5,4-h][1,2,4]benzothiadiazin-8-yl}acetate;
- $\label{lem:condition} 4-hydroxy-3-(8-\{[(3R)-3-hydroxypyrrolidin-1-yl]methyl\}-1,1-dioxido-4H-[1,3]oxazolo[5,4-h] \\ [1,2,4]benzothiadiazin-3-yl)-1-(isobutylamino)quinolin-2(1H)-one;$
- 3-[1,1-dioxido-8-(pyridinium-1-ylmethyl)-4H-[1,3]oxazolo[5,4-h][1,2,4] benzothiadiazin-3-yl]-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-4-olate;
- 3-[1,1-dioxido-8-(pyrrolidin-1-ylmethyl)-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
- 3-[8-(3-aminophenyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
- 3-[8-(aminomethyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxyl-(isobutylamino)quinolin-2(1H)-one;
- 4-hydroxy-3-[8-(hydroxymethyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl] -1-(isobutylamino)quinolin-2(1H)-one;
- 3-{8-[(butylamino)methyl]-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl}-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
- 3-[9-(butylamino)-1,1-dioxido-4H,8H-[1,4]oxazino[2,3-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
- 4-hydroxy-1-(3-methylbutyl)-3-(8-methyl-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4] benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one;
- 3-[1,1-dioxido-8-(trifluoromethyl)-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;

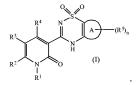
- U.S. Patent Application No. 10/699,513 Response to April 10, 2007 Office action May 10, 2007
- $\label{lem:condition} 4-hydroxy-3-(8-hydroxy-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4] benzothiadiazin-3-yl)-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;$
- 4-hydroxy-1-(3-methylbutyl)-3-(8-methyl-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4] benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one;
- 3-[1,1-dioxido-8-(pentafluoroethyl)-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
- 3-[8-(chloromethyl)-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
- {3-[4-hydroxy-1-(3-methylbutyl)-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl]-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4|benzothiadiazin-8-yl]acetonitrile;
- $methyl\ \{3-[4-hydroxy-1-(3-methylbutyl)-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl]-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-8-yl]acetate;$
- 3-(9,9-dioxido-6H-[1,2,5]thiadiazolo[3,4-h][1,2,4]benzothiadiazin-7-yl)-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
- 3-(8-amino-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4] benzothiadiazin-3-yl)-4-hydroxy-1-(3-methylbutyl)-1.8-naphthyridin-2(1H)-one; and
- $\label{lem:condition} 4-hydroxy-3-[8-(hydroxymethyl)-1,1-dioxido-4,9-dihydroimidazo[4,5-h][1,2,4] benzothiadiazin-3-yl]-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one.$
- (original) N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl} methanesulfonamide, or a pharmaceutically acceptable salt, stereoisomer or tautomer thereof.
- 58. (original) N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]methanesulfonamide, or a pharmaceutically acceptable salt, stereoisomer or tautomer thereof.
- 59. (original) N-(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl)methanesulfonamide, or a pharmaceutically acceptable salt, stereoisomer or tautomer thereof.
- (original) N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}sulfamide, or a pharmaceutically acceptable salt, stereoisomer or tautomer thereof.

- (original) N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}-N'-methylsulfamide, or a pharmaceutically acceptable salt, stereoisomer or tautomer thereof.
- 62. (original) A pharmaceutical composition comprising a therapeutically effective amount of a compound or combination of compounds of any one of claims 1, 57, 58, 59, 60 and 61, and a pharmaceutically acceptable carrier.
- 63. (original) The pharmaceutical composition of claim 62 further comprising one or more agents selected from the group consisting of a host immune modulator and a second antiviral agent, or combination thereof
- 64. (original) The pharmaceutical composition of claim 63 wherein the host immune modulator is selected from the group consisting of interferon-alpha, pegylated-interferon-alpha, interferon-beta, interferon-gamma, a cytokine, a vaccine and a vaccine comprising an antigen and an adjuvant.
- 65. (original) The pharmaceutical composition of claim 63 wherein the second antiviral agent inhibits replication of HCV by inhibiting host cellular functions associated with viral replication.
- 66. (original) The pharmaceutical composition of claim 63 wherein the second antiviral agent inhibits the replication of HCV by targeting proteins of the viral genome.
- 67. (original) The pharmaceutical composition of claim 62 further comprising an agent or combination of agents that treat or alleviate symptoms of HCV infection including cirrhosis and inflammation of liver.
- 68. (original) The pharmaceutical composition of claim 62 further comprising one or more agents that treat patients for disease caused by hepatitis B (HBV) infection.
- 69. (original) The pharmaceutical composition of claim 68 wherein the agent that treats patients for disease caused by hepatitis B (HBV) infection is selected from the group consisting of Ldeoxythymidine, adefovir, lamivudine and tenfovir.
- 70. (original) The pharmaceutical composition of claim 62 further comprising one or more agents that treat patients for disease caused by human immunodeficiency virus (HIV) infection.

- 71. (original) The pharmaceutical composition of claim 70 wherein the agent that treats patients for disease caused by human immunodeficiency virus (HIV) infection is selected from the group consisting of ritonavir, lopinavir, indinavir, nelfinavir, saquinavir, amprenavir, atazanavir, tipranavir, TMC-114, fosamprenavir, zidovudine, lamivudine, didanosine, stavudine, tenofovir, zalcitabine, abacavir, efavirenz, nevirapine, delavirdine, TMC-125, L-870812, S-1360, enfuvirtide (T-20) and T-1249, or any combination thereof.
- 72. (withdrawn) A method of treating or preventing infection caused by an RNA-containing virus comprising administering to a patient in need of such treatment a pharmaceutical composition of any one of claims 62, 63, 64, 65, 66, 67, 68, 69, 70 and 71.
- 73. (withdrawn) A method of inhibiting the replication of an RNA-containing virus comprising contacting said virus with a therapeuctially effective amount of a compound or combination of compounds of any one of claims 1, 57, 58, 59, 60 and 61.
- 74. (withdrawn) A method of treating or preventing infection caused by an RNA-containing virus comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound or combination of compounds of any one of claims 1, 57, 58, 59, 60 and 61.
 - 75. (withdrawn) The method of claim 72 wherein the RNA-containing virus is hepatitis C virus.

76-84. (canceled)

85. (withdrawn) A process for the preparation of a compound of formula (I)



or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

A is a monocyclic or bicyclic ring selected from the group consisting of aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocycle;

R¹ is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinylalkyl, alkylsulfinyla

arylalkenyl, arylalkyl, arylsulfanylalkyl, arylsulfonylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl), cycloalkyl), cycloalkyl), cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, baloalkyl, baloalkyl, beteroarylalkyl, beteroarylalkyl, beteroarylalkyl, beteroarylalkyl, beteroarylalkyl, beteroarylalkyl, beteroarylalkyl, beteroarylalkyl, propertylalkyl, propertyl, propertylalkyl, propertyl, propertylalkyl, propertyl, propertylalkyl, propertyl, propertylalkyl, prop

 R^2 and R^3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl, alkoxyalkyl, alkoxyacarbonyl, alkyl, aryl, arylalkyl, heteroaryl, heterocycle, heteroarylalkyl, cyano, halo, $-N(R_a)(R_b)$, $R_aR_bNC(O)$ -, $-SR_{as}$ $-S(O)R_{as}$ $-S(O)_2R_a$ and $R_aC(O)$ -; wherein R^2 and R^3 are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of R_a , alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, $-(alkyl)(OR_b)$, $-(alkyl)(NR_aR_b)$, $-SR_{as}$, $-S(O)R_a$, $-S(O)2R_a$, $-OR_b$, $-N(R_b)(R_b)$, $-C(O)R_a$, $-C(O)OR_a$ and $-C(O)NR_aR_b$;

alternatively, R^2 and R^3 , together with the carbon atoms to which they are attached form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl and heterocycle is optionally substituted with (R^6)_m;

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, $R_aR_bN_\tau$, $N_3\tau$, R_aS_τ , wherein R^4 is independently substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

 R^5 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, $R_aR_b = R_aR_b = R$

R⁶ is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, eyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroaryl, heteroarylalkyl,

heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR₀R_b), -SR_{av} -S(O)R_{av} -S(O)₂R_{av} -OR_{kv} -N(R_a)(R_b), -C(O)R_{av} -C(O)OR_{av} and -C(O)NR₀R_{bv}; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, -OR_{0v} -NR₀R_{bv} -SR_{0v} -SO₂R_v -SO₃R_v -C(O)OR_{0v} -C(O)NR_{0v}R_{bv} and -NC(O)R_v:

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR, R_a), -alkylSO₂NR, R_a , -alkylC(O)NR, R_a , -SR_c, -S(O) R_c , -OR_c, -OR_c, -N(R_c)(R_a), -C(O)R_c, -C(O)OR, and -C(O)NR, R_a :

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, -NR_iR_b-OR₅, -CO(R_c), -SR₅ -SOR₆, -SO_R₆, -C(O)NR_iR_b, -SO₂NR_iR_b, -C(O)OR₆ alkenyl, alkyl, alkylyl, eycloalkyl, elycloalkylakyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR₆), -(alkyl)(NR_iR_b), -SR₆, -S(O)₂R₆, -S(O)₂R₆, -N(R_i)(R_b), -C(O)R₆, -C(O)NR_iR_b, -C(O)M(H)NR_iR_b, -Y(R_c)C(O)OR₆, -N(R_c)SO₂NR_iR_b, -N(R_c)C(O)NR_iR_b, -alkylN(R_c)C(O)NR_iR_b, and -alkylN(R_c)C(O)NR_iR_b,

alternatively, R_c and R_{ds} together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents

independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroaryl, eteroarylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR₁), -(alkyl)(NR₁R_b), -SR₅ -S(O)R₅ -S(O)₂R₅ -OR₅ -N(R₁)(R_b), -C(O)R₅ -C(O)OR₇ and -C(O)NR₃R₄:

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{\rm f}$, $R_{\rm g}$ and $R_{\rm h}$, at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylakyl, eycloalkenyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroarylalkyl; wherein each $R_{\rm f}$, $R_{\rm g}$ and $R_{\rm h}$ is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -N(H)(alkyl), -N(alkyl)₂, -S(alkyl), -S(O)(alkyl), -S02alkyl, -alkyl-O-alkyl, -Blyl-N(H)(alkyl), alkylN(alkyl)₂, -alkylS(alkyl), -alkylS(alkyl), -alkylS(alkyl), -AlkylS(alkyl), -Blyl-N(H)(C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)Alkyl, -C(O)N(H), -

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R₇ and R_h together with the nitrogen atom to which they are attached form a threeto seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, –OH, -O(alkyl), -NH₂, -N(H)(alkyl), -N(alkyl)₂, -S(alkyl), -S(O(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkyl-NH₂, -alkyl-N(H)(alkyl), -alkylS(alkyl), -alkylS(O(alkyl), -alkylSO₂alkyl, -alkyl-N(alkyl)₂, -N(H)C(O)NH₂, -C(O)O(alkyl), -C(O)NH₂, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

 R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, falcalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, $R_aR_kNalkyl$ -, $R_aOalkyl$ -, $R_aR_kNC(O)$ -, R

m is 0, 1, 2, 3, or 4; and

n is 0, 1, 2, 3, or 4:

with the proviso that when A is a monocyclic ring other than

and R^4 is alkoxy, aryloxy, hydroxy or R_aS_7 , and R^3 is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heterocyclealkyl, cycloalkyl, cyano, nitro, $R_aR_bN_7$, $R_aC(O)_7$, R_aS_7 , $R_a(O)S_7$,

and with the further proviso that when A is

and R^4 is hydroxy or R_sS -, and R^5 is hydrogen, unsubstituted alkyl, halo or $-OR_k$, and R^6 is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heterocyclealkyl, $-SR_{as}$ - $S(O)R_a$, - $S(O)_2R_a$, -S(

(a) contacting a compound of formula (26)

$$\mathbb{R}^3$$
 \mathbb{R}^2
 \mathbb{R}^1
 \mathbb{R}^1
 \mathbb{R}^2

with carbon disulfide and a methylating agent in the presence of a base to provide a compound of formula (27)

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$$R^3$$
 R^3
 R^3

(b) contacting the compound of formula (27) with a compound of formula (13)

$$(R^5)_n$$
 SO_2NH_2
 NH_2 (13).

86. (withdrawn) A process for the preparation of a compound of formula (I),

$$R^3$$
 R^4
 R^3
 R^4
 R^5
 R^4
 R^5
 R^5
 R^5
 R^5
 R^5

or a pharmaceutically acceptable salt form, stereoisomer or tautomer thereof, wherein:

A is a monocyclic or bicyclic ring selected from the group consisting of aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocycle;

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylalkyl, arylsulfanylalkyl, arylsulfonylalkyl, carboxyalkyl, cycloalkyl, cycloalkyl, cycloalkyl) alkyl, formylalkyl, haloalkoxyalkyl, cycloalkyl) alkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, $R_aR_bN-R_bR_bN-R_aR_bN-R_bR$

R2 and R3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl,

alkoxyalkyl, alkoxycarbonyl, alkyl, aryl, arylalkyl, heteroaryl, heterocycle, heteroarylalkyl, cyano, halo, $-N(R_a)(R_b)$, $R_aR_bNC(O)$ -, $-SR_a$, $-S(O)R_a$, $-S(O)_2R_a$ and $R_aC(O)$ -; wherein R^2 and R^3 are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of R_a , alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, $-(alkyl)(OR_k)$, $-(alkyl)(NR_aR_b)$, $-SR_a$ - $-S(O)R_a$, $-S(O)_2R_a$, $-S(O)_2$

alternatively, R^2 and R^3 , together with the carbon atoms to which they are attached form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl and heterocycle is optionally substituted with $(R^6)_m$;

 R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, $R_aR_bN_\tau$, N_3 , R_sS_τ , wherein R^4 is independently substituted with 0, 1 or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

 R^5 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydoxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_sR_0 -N, R_sC_0 -D, R_s - $R_s(O)$ -S-, R_sR_0 -Nakyl-, R_sC_0 -N(R_t -), R_t -N(R_t -),

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_{ab} - $S(O)R_{ab}$ - $S(O)_2R_{ac}$ - OR_{kc} - $N(R_a)(R_b)$, - $C(O)R_{ab}$ - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_{ac} - NR_aR_{bc} - SR_{ac} - SO_2R_{ac} - $C(O)OR_{ac}$ - $C(O)NR_aR_b$ and - $NC(O)R_a$;

R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, nitroalkyl, R_cR_dN-, R_kO-, R_kOalkyl-, R_cR_dNalkyl-, R_cR_dNC(O)alkyl-, R_cSO₂-, R_cSO₂alkyl-, R_cC(O)-, R_cC(O)alkyl-, R_cC(O)alkyl-, R_cR_dNalkylC(O)-, R_cR_dNC(O)-,

 $R_c R_d NC(O)Oalkyl$ -, $R_c R_d NC(O)N(R_c)alkyl$ -, wherein R_a and R_b are substituted with 0, 1 or 2 substituents selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_d;

alternatively, R_a and R_b , together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR,R_d), -alkylSO₂NR_cR_{d_b} -alkylC(O)NR_cR_{d_b} -SR_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;

R_c and R_{ds} at each occurrence, are independently selected from the group consisting of hydrogen,
-NR₃R_{bs} -OR₆ -CO(R₂), -SR₆ -SO_{R₆} -SO₂R₆ -C(O)NR₃R_{bs} -SO₂NR₃R_{bs} -C(O)OR₆ alkenyl, alkyl, alkynyl,
cycloalkyl, cycloalkylalkyl, eycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl,
heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R, and R_a is independently substituted
with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl,
oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl,
alkoxyalkyl, -(alkyl)(OR₆), -(alkyl)(NR₃R_b), -SR₅, -S(O)R₆ -S(O)₂R₆ -OR₅ -N(R₂)(R_b), -C(O)R₆
-C(O)OR₆, -C(O)NR₃R_b, -C(O)N(H)NR₃R_b, -N(R₂)C(O)OR₆, -N(R₂)OZ₂NR₃R_b, -N(R₂)C(O)NR₃R_b,
-alkylN(R₂)C(O)NR₃R_b.

alternatively, R_c and R_{tb} together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, eyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR $_0$), -(alkyl)(NR $_1$ R $_0$), -SR $_0$ -S(O)R $_0$ -S(O) $_2$ R $_0$ -OR $_0$ -N(R $_0$)(R $_0$), -C(O)R $_0$ -C(O)OR $_1$ and -C(O)NR $_1$ R $_0$;

Re is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 R_6 R_g and R_b , at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenyl, heterocycle, heterocyclealkyl, heteroaryl and heteroarylalkyl; wherein each R_6 R_g and R_b is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkyl, heterocycle, heteroaryl,

heteroarylalkyl, –OH, -O(alkyl), -NH₂, -N(H)(alkyl), -N(alkyl)₂, -S(alkyl), -S(O)(alkyl), -SO₂alkyl, -alkyl-OH, -alkyl-O-alkyl, -alkylNH₂, -alkylN(H)(alkyl), -alkylN(alkyl)₂, -alkylS(alkyl), -alkylS(O)(alkyl), -alkylSO₂alkyl, -N(H)C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH₂, -C(O)NH₃, -C(O)N(H)(alkyl), and -C(O)N(alkyl);

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of evcloalkyl, evcloalkyl and heterocycle:

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a three-to seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), $-NH_{2s}$, -N(H)(alkyl), $-N(alkyl)_2$, -S(alkyl), -S(alkyl), -S(O(alkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkylNH_{2s}$, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(O(alkyl), $-alkylSO_2alkyl$, $-alkylN(alkyl)_2$, $-N(H)C(O)NH_{2s}$, $-C(O)NH_{2s}$, $-C(O)NH_{2s}$, $-C(O)NH_{2s}$, -C(O)N(H)(alkyl), and $-C(O)N(alkyl)_2$;

 R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocyclealkyl, nitroalkyl, $R_sR_kNalkyl$ -, $R_sOR_kR_kR_kNC(O)$ -, $R_sR_kNC(O)$ -, $R_sR_kNC(O)$ -, $R_sC(O)$ -, $R_$

m is 0, 1, 2, 3, or 4; and
n is 0, 1, 2, 3, or 4;
with the proviso that when A is a monocyclic ring other than



and R^4 is alkoxy, aryloxy, hydroxy or R_oS -, and R^5 is hydrogen, alkenyl, alkoxy, alkyl, alkynyl, aryl, halo, heteroaryl, heterocyclealkyl, cycloalkyl, cyano, nitro, R_aR_bN -, $R_aC(O)$ -, R_aS -, $R_a(O)S$ -, R

- $C(O)OR_a$ and - $C(O)NR_aR_b$, then R^1 is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroarylalkenyl, heteroarylalkyl, heterocyclealkenyl or heterocyclealkyl;

and with the further proviso that when A is

and R^4 is hydroxy or R_aS -, and R^3 is hydrogen, unsubstituted alkyl, halo or $-OR_k$, and R^6 is hydrogen, alkyl, alkenyl, alkynyl, halo, cyano, nitro, aryl, heteroaryl, heterocyclealkyl, $-SR_{as}$ - $S(O)R_{as}$ - $S(O)_2R_{as}$ - OR_k , $-N(R_a)(R_b)$, $-C(O)R_a$, $-C(O)OR_a$ and $-C(O)NR_aR_b$, then R^1 is not hydrogen, alkenyl, alkyl, alkynyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heterocyclealkenyl or heterocyclealkyl; comprising:

(a) contacting a compound of formula (26)

$$R^3$$
 R^2
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3

with tris(methylthio)methyl methyl sulfate in the presence of a base to provide a compound of formula (27)

(27); and

(b) contacting the compound of formula (27) with a compound of formula (13)

$$(R^5)_n$$
 SO_2NH_2
 NH_2 (13).

87. (withdrawn) A compound having formula (IX),

$$R^3$$
 R^2
 R^2
 R^2
 R^3
 R^2
 R^3
 R^{12}
 R^{12}
 R^3
 R^{12}

or a pharmaceutically acceptable salt form, tautomer or stereoisomer thereof, wherein

 R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, alkylsulfanylalkyl, alkylsulfanylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylsulfanylalkyl, arylsulfonylalkyl, arylsulfanylalkyl, arylsulfanylalkyl, arylsulfonylalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, formylalkyl, hatoalkoxyalkyl, haloalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylsulfonylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, nitroalkyl, $R_aR_bN-R_aR_bNalkyl-R_aR_bNC(O)$ alkyl- $R_aR_bNC(O)$ alkyl- R_aR_bN

 R^2 and R^3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl, alkoxyalkyl, alkoxyacarbonyl, alkyl, aryl, arylalkyl, heteroaryl, heterocycle, heteroarylalkyl, cyano, halo, $-N(R_a)(R_b)$, $R_aR_bNC(O)$ -, $-SR_a$, $-S(O)R_a$, $-S(O)_2R_a$ and $R_aC(O)$ -; wherein R^2 and R^3 are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of R_a , alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, $-(alkyl)(OR_b)$, $-(alkyl)(NR_aR_b)$, $-SR_a$, $-S(O)R_a$, $-S(O)_2R_a$, $-OR_b$, $-N(R_a)(R_b)$, $-C(O)R_a$, $-C(O)OR_a$ and $-C(O)NR_aR_b$;

alternatively, R^2 and R^3 , together with the carbon atoms to which they are attached form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl and heterocycle is optionally substituted with $(R^6)_{mi}$;

 R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), - SR_a , - $S(O)R_a$, - $S(O)_2R_a$, - OR_k , - $N(R_a)(R_b)$, - $C(O)R_a$, - $C(O)OR_a$ and - $C(O)NR_aR_b$; wherein each R^6 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, - OR_a , - NR_aR_b , - SR_a , - SO_3R_a , - SO_3R_a , - $C(O)OR_a$, - $C(O)NR_aR_b$, and - $NC(O)R_a$;

alternatively, R_a and R_b, together with the nitrogen atom to which they are attached form a threeto six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkylSO₂NR_cR_d, -alkylC(O)NR_cR_d, -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR. and -C(O)NR_cR.

 R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, -NR_cR_b, -CO(R_c), -SR₅ -SOR₅ -SOR₅ -SO_R₅ -C(O)NR_cR_b, -SO₂NR_cR_b, -C(O)OR₅ alkenyl, alkyl, alkyl, alkynyl, eycloalkyl, eycloalkyl, eycloalkyl, theteroaryl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heteroarylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_b), -SR₅ -S(O)R₆ -S(O)₂R₆ -OR₅ -N(R_c)(R_b), -C(O)R₆ -C(O)NR_cR_b, -C(O)NR_cR_b, -C(O)NR_cR_b, -C(O)NR_cR_b, -C(O)NR_cR_b, -C(O)NR_cR_b, and -alkylN(R_c)C(O)NR_cR_b;

alternatively, R_c and R_d , together with the nitrogen atom to which they are attached form a three-to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2 or 3 substituents independentlyselected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, eyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkyl, -(alkyl)(OR $_0$), -(alkyl)(NR $_0$ R $_0$), -SR $_0$ -S(O)R $_0$ -S(O) $_2$ R $_0$ -OR $_0$ -N($_0$)(R $_0$), -C(O)R $_0$ -C(O)OR $_0$ and -C(O)NR $_0$ R $_0$:

R, is selected from the group consisting of hydrogen, alkenyl, alkyl and cycloalkyl;

 $R_{6}\ R_{8}\ and\ R_{h},\ at\ each\ occurrence,\ are\ independently\ selected\ from\ the\ group\ consisting\ of\ hydrogen,\ alkyl,\ alkenyl,\ aryl,\ arylalkyl,\ cycloalkylalkyl,\ cycloalkylalkyl,\ cycloalkenyl,\ cycloalkenyl,\ cycloalkenyl,\ cycloalkenyl,\ cycloalkenyl,\ cycloalkenyl,\ beterocycle,\ heterocycle, heterocyclealkyl,\ heterocyclealkyl,\ heterocyclealkyl,\ heterocyclealkyl,\ cycloalkenyl,\ wherein\ each\ R_{6}\ R_{8}\ and\ R_{h}\ is\ independently\ substituted\ with\ 0,\ 1,\ 2\ or\ 3\ substitutents\ independently\ selected\ from\ the\ group\ consisting\ of\ alkyl,\ alkynl,\ alkynl,\ alkynl,\ and\ heterocycle,\ heterocycle,\$

alternatively, R_f and R_g together with the carbon atom to which they are attached form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl and heterocycle;

alternatively, R_f and R_h together with the nitrogen atom to which they are attached form a three-to seven-membered ring selected from the group consisting of heterocycle and heteroaryl; wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -NH, -N(H)(alkyl), -N(alkyl), -S(alkyl), -S(alkyl), -S(olkyl), -alkyl-OH, -alkyl-O-alkyl, $-alkylNH_2$, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(O(alkyl), $-alkylSO_2alkyl$, -alkylN(alkyl), $-N(H)(O)NH_2$, -C(O)OH, -C(O)O(alkyl), -C(O)Alkyl, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$), $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$), $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)NH_2$), $-C(O)NH_2$, $-C(O)NH_2$,

 R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, $R_aR_bNalkyl$ -, $R_aOR_bNC(O)$ -, $R_aR_bNC(O)$ -, R_aSO_2 -,

m is 0, 1, 2, 3, or 4; and

R11 and R12 are independently selected from the group consisting of alkyl, alkenyl and alkynyl.

88. (withdrawn) The compound of claim 87, or a pharmaceutically acceptable salt form, tautomer or stereoisomer thereof selected from the group consisting of:

dione:

- 1-benzyl-3-(bis(methylthio)methylene)-1H-quinoline-2,4(1H,3H)-dione;
- 3-[bis(methylthio)methylenel-1-butyl-1,8-naphthyridine-2,4(1H,3H)-dione:
- $3-[bis(methylthio)methylene]-1-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3-dihydro-2\emph{H-}isoindol-2-yl) quinoline-2,4(1\emph{H},3\emph{H})-(1,3-dioxo-1,3$
 - 3-[bis(methylthio)methylene]-1-[(cyclopropylmethyl)amino]quinoline-2,4(1H,3H)-dione;
 - 3-[bis(methylthio)methylenel-1-(3-methylbutyl)pyridine-2,4(1H,3H)-dione;
 - 1-benzyl-3-[bis(methylthio)methylene]pyridine-2,4(1H,3H)-dione;
 - 3-[bis(methylthio)methylenel-1-(cyclobutylamino)quinoline-2.4(1H,3H)-dione; and
 - 3-[bis(methylthio)methylenel-1-(cyclobutylmethyl)pyridine-2.4(1H.3H)- dione.
- 89. (previously presented) The compound, salt, stereoisomer or tautomer of claim 1, wherein said compound comprises a core ring selected from Table 1, and each Y¹, Y², Y³ or R¹ on said core ring is independently selected at each occurrence from Table 3, Table 3, Table 4 or Table 2, respectively.
- 90. (previously presented) The compound, salt, stereoisomer or tautomer of claim 1, wherein R¹ is R_aR_bN-, and R² and R³, together with the carbon atoms to which they are attached form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, and wherein R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cycloalkyl, cycloalkyl, cycloalkyl, cycloalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, hydroxyalkylcarbonyl, and nitroalkyl.
- 91. (previously presented) The compound, salt, stereoisomer or tautomer of claim 25, wherein R⁵ is R_aSO₂N(R_c)alkyl-, and R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, and nitroalkyl.
- 92. (previously presented) The compound, salt, stereoisomer or tautomer of claim 25, wherein R¹ is R_aR_bN-, and R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, eyanoalkyl, cycloalkenyl, eycloalkyl, eycloalkyl, eycloalkyl, haloalkyl, heteroaryl,

heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, and nitroalkyl.